

SECTION IV.

To a young Woman, with a Watch.

While this gay toy attracts thy sight,

Thy reason let it warn;

And seize, my dear, that rapid time,

That never must ret.

If idly lost, no art or care

The blessing can restore;

And Heav'n requires a strict account

For every mispent hour.

Short is our longest day of life,

And soon its prospect ends;

Yet on that day's uncertain date,

Eternity depends.

But equal to our being's aim,

The space to virtue giv'n;

And every minute, well improv'd,

Secures an age in Heav'n.

CARTER.

SECTION V.

Ver, accompanying a Nosegay.

Let not steal the rose's bloom,

Dorsey's Lectures
Vol. 2^d.

Sold by Bennett & Walton, No. 37, Market-st. Philad.

With which the artist builds her comb,
And keeps all firm and warm at home;

's golden bells

chamber-cells;

ose pursues

grant daws,

shining bloom,

perfume.

in ev'ry way

of the day.

And Ant was near,

narrow'd o'er by care:

was she,

than the Bee;

often taught

want of thought;

th depends,

of friends

Ant is found

to tread the ground;

to trace the grain,

load with pain.

The active Bee with pleasure saw

The Ant fulfil her parents' law.

Ah! sister-labourer, says she,

How very fortunate are we!

Who, taught in infancy to know

The comforts which from labour flow,

Are independent of the great

~~1179~~ 51430



Class 10a

No 40

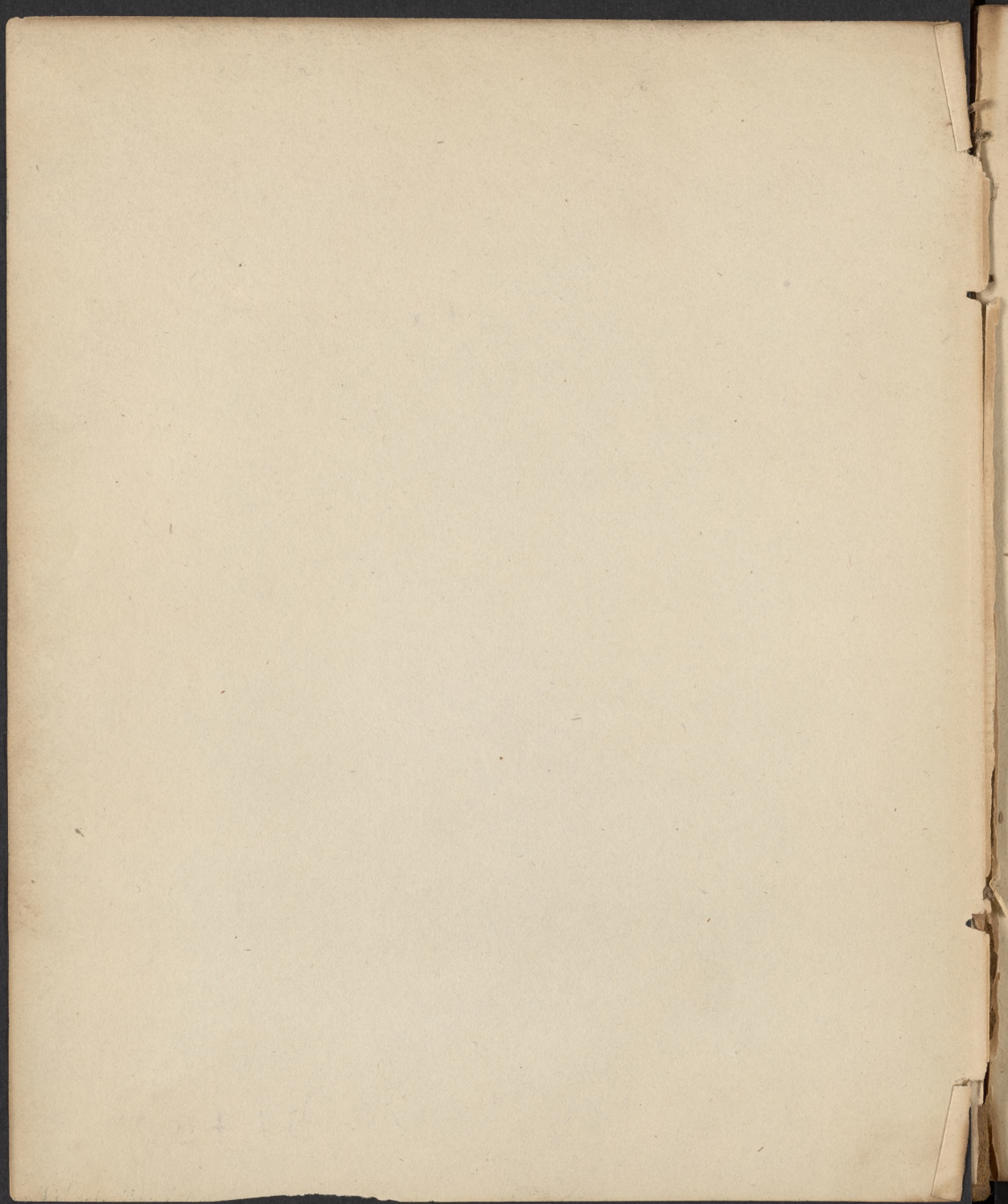
Presented by
L. Minis Hays, M.D.

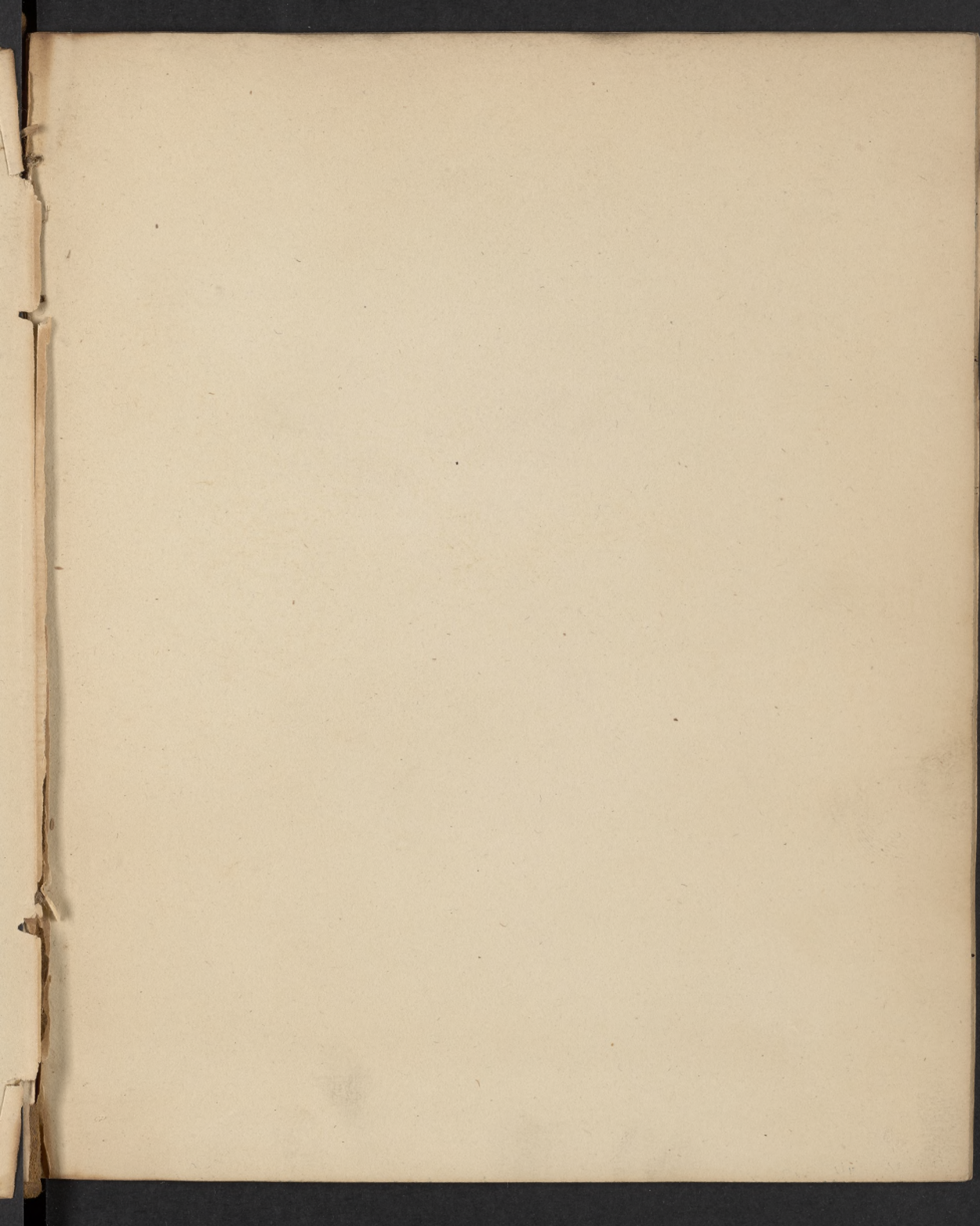
Presented to Isaac Hayes
by his friend
J. G. B. Wood

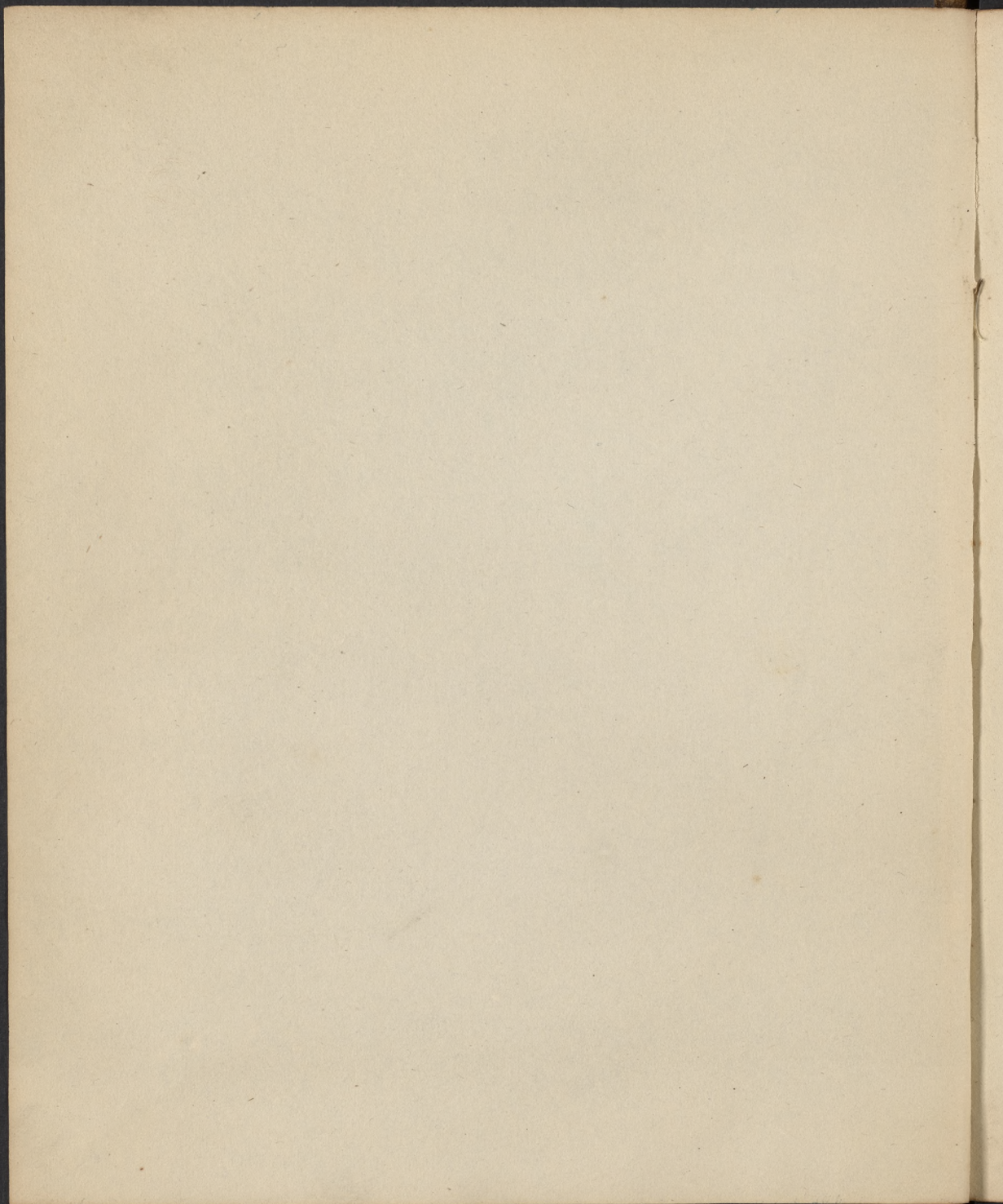
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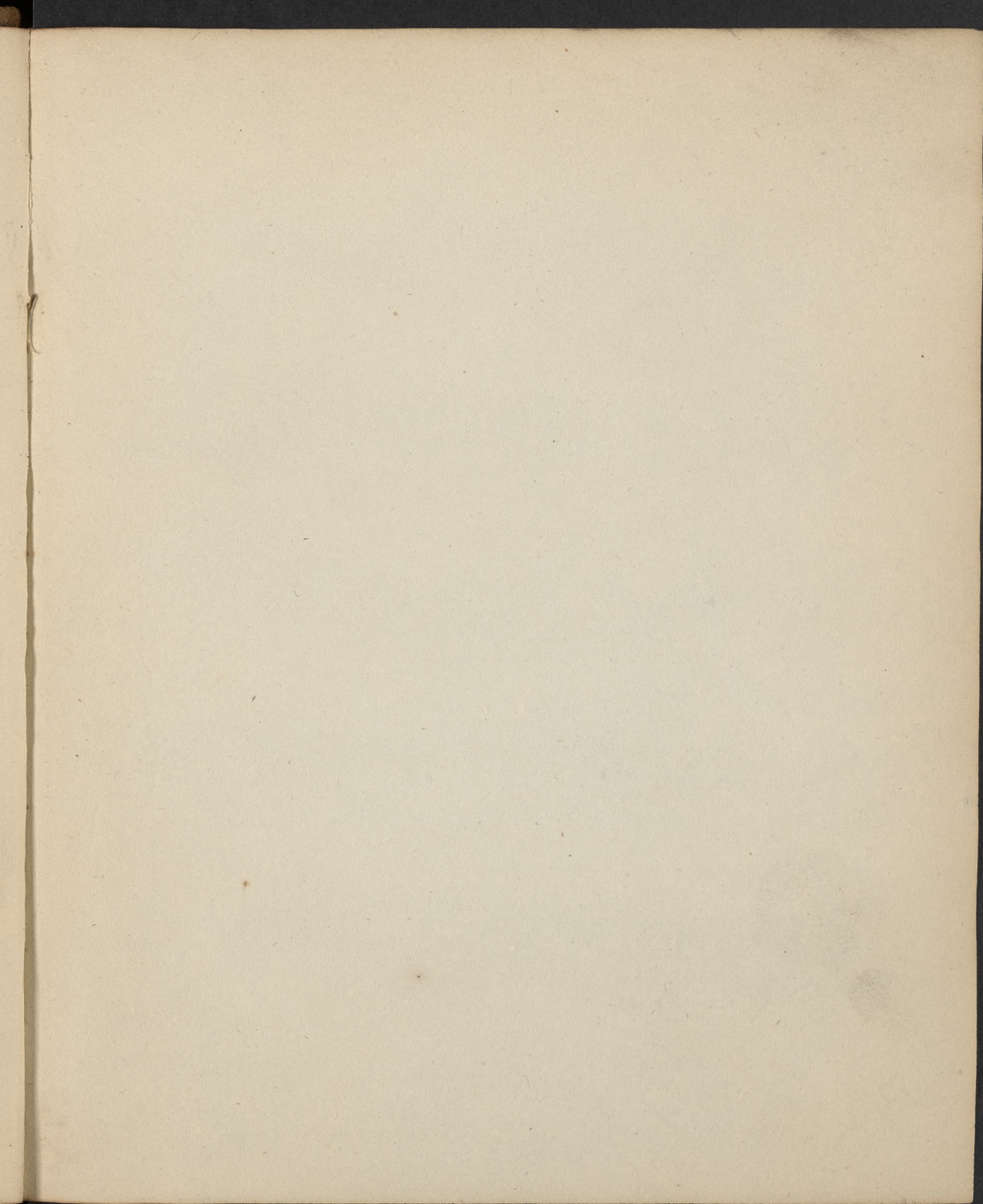


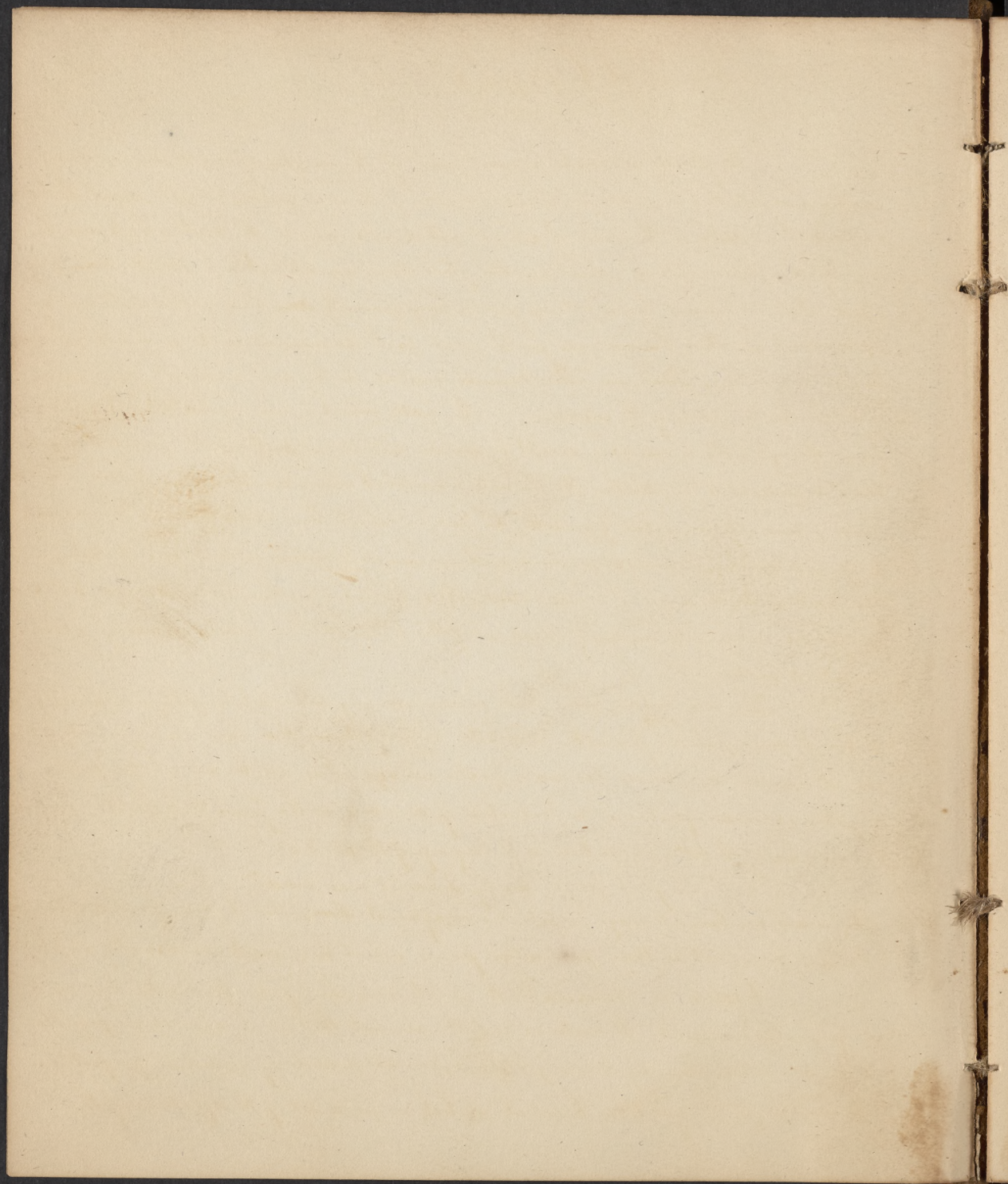
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Drinks.

As fluids constitute a great part of the weight of our body, and are as necessary as food to our existence, a consideration of them as articles of diet must be highly important. - Water is the basis of almost all drinks, and is the best which can be employed. Those nations which use this fluid alone, are liable to disease than any others. Water is seldom found entirely pure, being generally ~~combined~~ combined with substances of a saline nature. These, however, are for the most part too inconsiderable in quantity to ~~deserve~~ deserve our notice. That are called Mineral waters, as they are medicinal, shall receive attention in other parts of the course. - The water which is used in this country is obtained from springs, wells, or rivers; &c, except in certain districts, is sufficiently pure to be wholesome & pleasant to the palate. The districts to which I allude are those along the sea, where the water is generally somewhat brackish; and those in which lime abounds. - In disease water is the best drink, and may be combined with various substances, either to give it taste, or to impart a slight degree of nourishment. The infusions of certain herbs, as sage, horehound, & black tea &c; and the solution of sugar are of this kind. All these articles are useful as condiments to water. -

There are certain other fluids which are very commonly employed as drinks. Of these the principal are fermented & distilled liquors. Since these have come generally into use, it is certain that disease has made greater ravages. I do not know whether there is any other cause so operation in the production of disorders, as the fermented & distilled liquors; but especially the latter; - so true is the language of the poet: -

"The first physician by debauch was made."

Physicians are bound to wage perpetual war against ~~these~~ this hydra of calamities. I shall now notice those particular forms, which are most ~~even~~ usually employed.

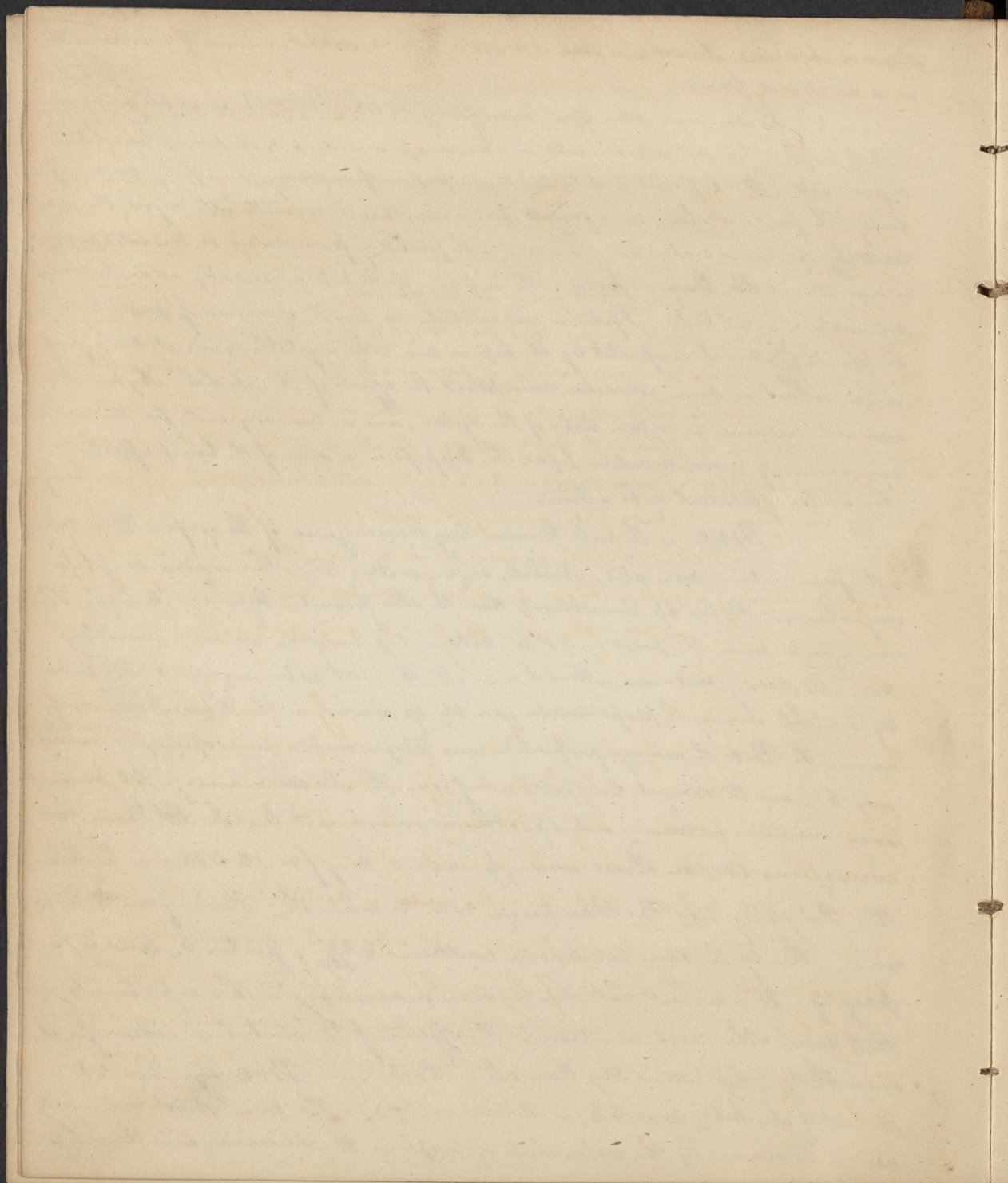
Cider in America is the most common of the fermented liquors, & is generally innocent. It contains so little alcohol that it is almost impossible to produce intoxication by drinking it; and it is not destitute of nutritious properties. It is improper in gout, in habitual indigestion, & in most of the affections of the



stomach & bowels. The reason is that it is apt to become astringent, and very often contains acid ~~is~~ ~~to~~ already formed.

In our large cities, great quantities of malt liquors are employed by every class of people. I do not intend to enter into a minute account of the process by which they are made. It is sufficient to state, that they are prepared from ~~barley~~ ^{barley}, principally prepared from barley, the fecula of which, on exposure to heat & moisture, is converted into sugar. This is extracted by solution in water; and, according as the process of fermentation is conducted, ~~is~~ ^{is} converted into ale, Beer, or Porter. The infusion of the hop is generally added to communicate a bitter taste. Porter is undoubtedly the purest specimen of malt liquors. In Ale, the bitterness imparted by the hop or some other vegetable, gives it tonic properties, which, in some measure, counteract the effects of the alcohol. They are all valuable medicines in certain states of the system, and answer very well for the common drink of persons in active life. In Dyspepsia & some of the bowel affections they are too flatulent to be allowed.

Wine is the well known, long known juice of the grape. It contains, after fermentation, some acid, alcohol, sugar, water, and other ingredients of less importance. It has less nourishment than the other fermented liquors; - its sugar, however affords some. The sweet wines as Malaga, Cape wine &c. are more nourishing than Madeira, Port &c. - Alcohol is in all the most active ingredient. The following is a table showing the proportionate quantity of alcohol in the different kinds of wine. In Port the average proportion was 22 per cent; - some specimens ^{containing} ~~average~~ only 21, and the strongest, 26 parts out of 100. The Madeira average 21 per cent; some specimens containing only 19, others as much as 26. In ~~the~~ Sherry the average was 18; in Claret exceedingly various, being from 12 to 18; in Lisbon 18; Burgundy 15; Red champagne 11 & the white 12; Rhock from 8 to 14; &c. - Ale by the same experiments contained $8\frac{22}{100}$, porter 6, cider 9, & Perry 9. It is evident that there is some inaccuracy in this experiments, or that some other cause counteracts the effects of the alcohol in cider: for this undoubtedly is less intoxicating than ale or Porter. - Brandy has 58 per cent of alcohol; rum 53; & Holland gin 51. The wine most commonly used in America by the richer class of people is the Madeira; and this is less

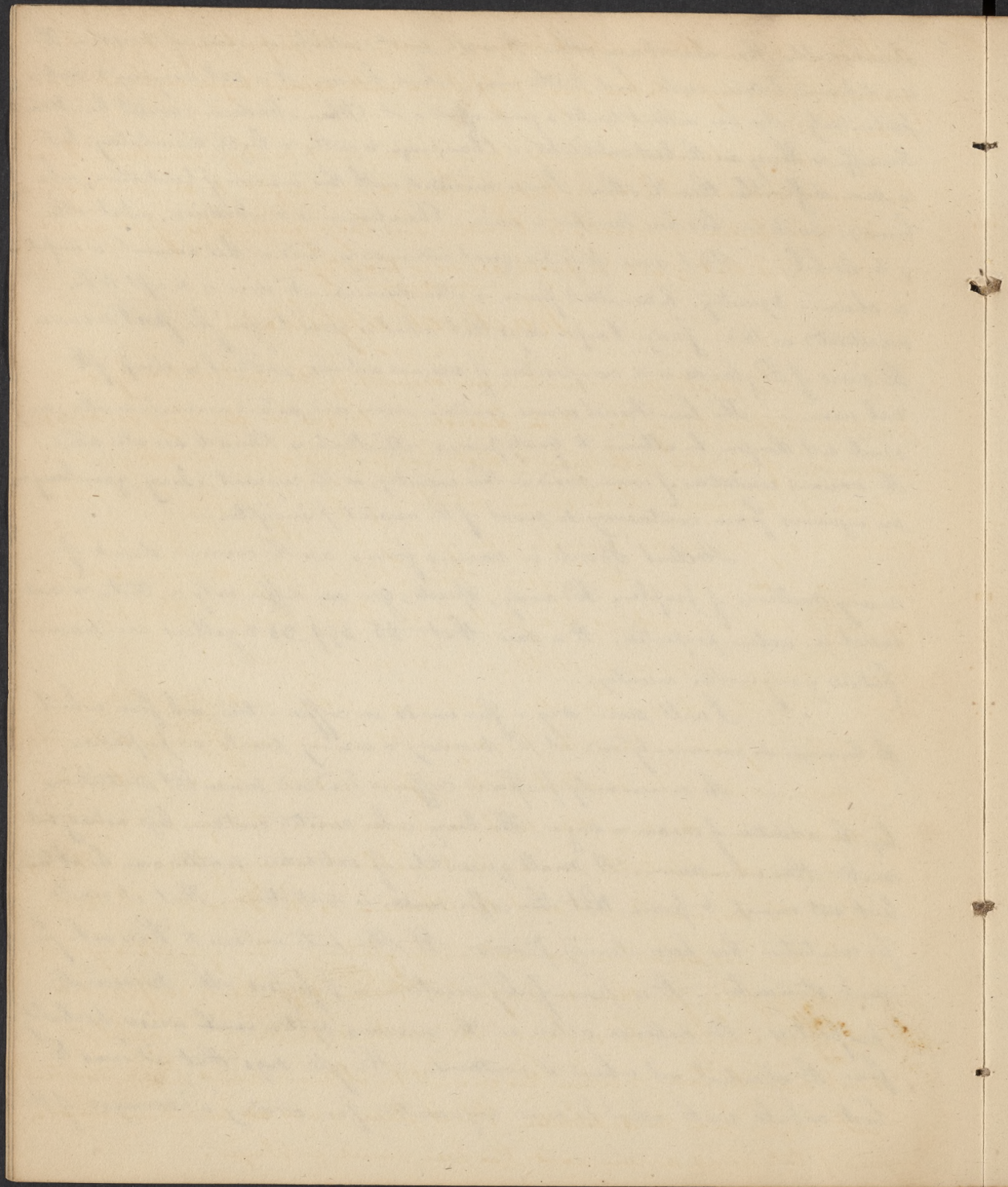


objectionable than almost any other. It is also most suitable in cases of disease. There is a difference between cork, and bottle wine, which, however, it is not necessary to notice particularly. Age has without doubt a good effect on it. When Madeira cannot be obtained, Sauriff & Sherry are the best substitutes. - Champagne is costly & highly stimulating; but is more diffusible than the others. I once succeeded with this in a case of prostration, when brandy, spirits &c. had been lavished in vain. Champagne is to Madeira, what ether is to alcohol. - Port wine possesses great astringency, and on that account, is useful in chronic dysentery, intermittent fevers, & other diseases. No wine is so apt to be adulterated as this. Judge Cooper says that what is given to you for port wine in the inns of England is a composition of various articles, without a drop of the real wine. - The low French wines contain more acid, and astringent matter, & should not, therefore, be allowed to young persons. The Rhock, & Rhinisch are also acid. The various imitations of wine made in this country, as the currant, cherry, gooseberry &c. are injurious from containing so much of the astringent principle. -

Ardent Spirits in various forms are the common drink of many millions of people. Brandy, spirits, gin &c. differ only in taste, & not much in active properties. It is said that 25, 499, 382 gallons are manufactured yearly in this country.

I will now say a few words on coffee & tea, and for which the beverages so commonly used at the morning & evening meals are prepared.

A commonly prepared coffee is rendered somewhat nutritious by the addition of cream & sugar. The berry when roasted contains less astringent matter than when raw. A small quantity of extractive matter can be obtained, but not enough to prove that the coffee ~~article~~ is nutritious. That it resists fermentation has been clearly proved. It often puts an end to head ache from sick stomach. - It is powerfully sedative & possesses the medicinal properties. Its ~~active~~ action on the nervous system is the crisis probably from the essential oil which it contains. Pringle says that it was the best article, with which he was acquainted, for abating a paroxysm of the



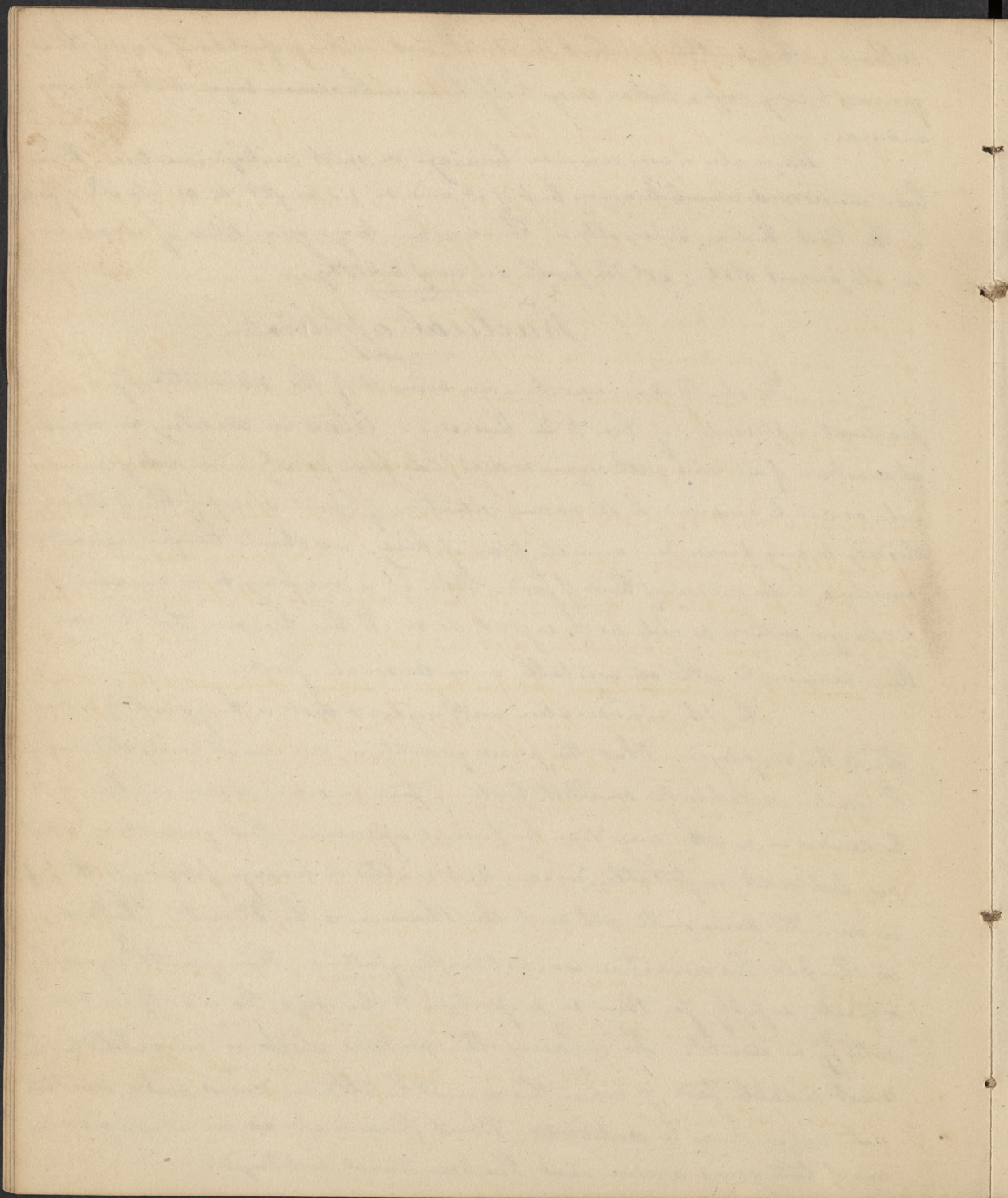
Asthma. The method in which he used it was - in the proportion of 1oz. of the grounds to every cup, taken every half hour with ~~cream~~ sugar without cream or sugar.

Tea is also a very common beverage in most civilized countries. It has been considered unwholesome; but if it were so, we ought to see its ill effects in the East Indies, especially in China where large quantities of it are used in its purest state; yet the people are very healthy.

Practical application.

We shall now conclude our account of the Nutrition by a practical application of them to the Disease. - Celsius in directing an occasional revision of all rules with regard to diet, has given us a good and ~~and~~ general rule as can be advanced. In the various situations of life it is impossible to adhere steadily to any precise and accurate plan of living: we should therefore accustom ourselves to ~~be~~ use every kind of food. When it is necessary ~~to~~ or convenient to change man is as able as the eagle to do so. It has been seen that he can live exclusively either on vegetable or on animal foods.

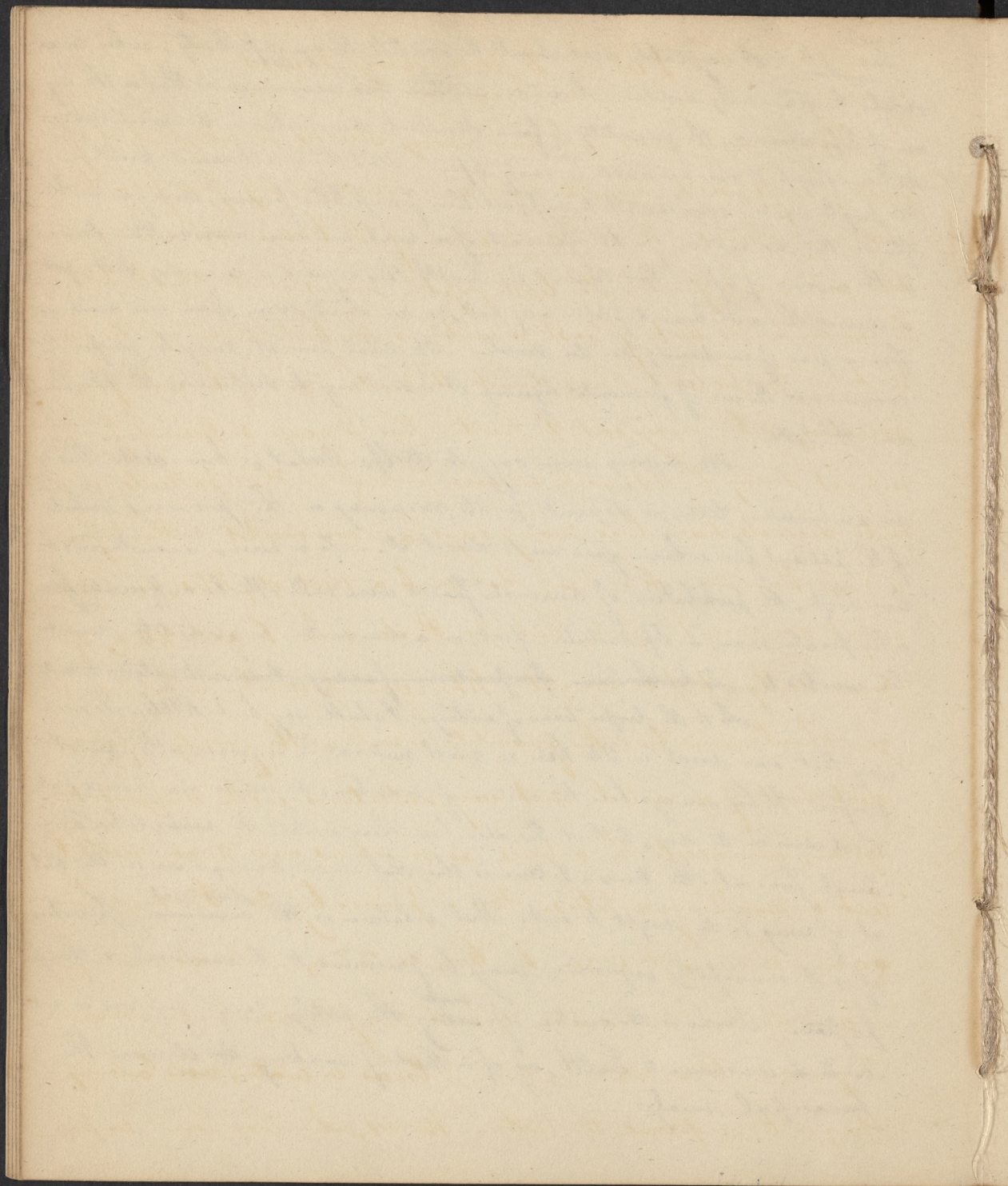
The 1st. consideration with regard to diet, is the quantity which should be employed. What the precise quantity is, we cannot easily determine. The Question, what is the smallest portion of food on which man can live, is to be decided in no other way than by personal experience. That quantity on which we feel most comfortable, and are best enabled to undergo fatigue, is the proper one. The same will not suit the Plowman & the Student. Children, as Rousseau has remarked are naturally gluttons. Their growth requires a greater supply for them in proportion to their size, than is sufficient to satisfy an adult. In infancy the mother's milk is undoubtedly the most suitable food, & where this cannot be obtained cow's milk, sweetened with sugar may be substituted. Wheat flour is also ~~and~~ sometimes added, and of late years arrow root has been much employed.



Sec. 7th. A vegetable diet should be used till the age of puberty, when meat should be gradually added. A certain author has recommended that as the vigour of life declines, the quantity of food should be diminished in the same ratio as that in which it was increased in early life. - But this is not sound practice. Old people require nourishment to support their feeble frames, and you will often see them as anxious for the approach of a meal, and even more so than persons in the vigour of life. But though in health they require a nourishing diet, yet in disease they will bear depletion very well, & we should never spare our remedies from a fear of weakening them too much. - At what time it may be proper to commence the use of fermented liquors it is not easy to determine; the later, however, the better. -

An inquiry now suggests itself, - what is low-diet. This is an ambiguous term, & depends for its meaning on the previous habits of the patient for whom you are to direct it. - To a person accustomed to live high, the prohibition of animal food & wine will often be sufficient; for a temperate man, a less nutritious diet, or a diminution in quantity must be resorted to. ~~As to the time, & proper time of eating, I do not intend to enter.~~

As to the proper time of eating, I shall say but little. Some say that one meal in 24 hrs. is most natural & consequently most proper. It has always been the custom of mankind to make one principal meal ~~once~~ in the day, but it has also been their custom to make take additional food at other times. So true is this, that some savages are in the habit of rising in the night to eat. But whatever is the ^{universal} ~~common~~ practice, if not manifestly injurious, may be presumed to be natural, & therefore proper. - Perhaps the custom of ^{making} eating the eating sweet supper is not so ~~so~~ conducive to health, as ~~as~~ is that of making the dinner the principal meal. -



Diet in Inflammatory Diseases

There are some cases of inflammatory diseases in which it is of great consequence to keep the heart and arteries entirely free from stimulant impressions. In Inflammation of the Brain this remark applies with great force. The least possible nourishment should here be allowed. A diet of toast & water is the best which can be prescribed. The patient may drink the water, and, if he wish for something solid, may eat the toast. This is quite sufficient for his support during the 1st. week or even fortnight. That patients in acute diseases have lived many days, and even weeks without food, is well known. As a proof that such a diet depletes, we have only to advance the fact, that Dr. Stork, when he took 20 oz. of bread daily, lost in weight. When you prescribe a low diet, you should mention the quantity as well as the quality: - for a great deal of an article not very nutritious will support the system, and excite the arteries, as much as one more nutritious but in smaller quantities. This is proved by Dr. Stork, who gains in weight when he lives on 38 oz. of bread daily. - Panada is a preparation which may be used in inflammatory cases. It is made by boiling bread in water, and adding sugar to improve the taste. Nurses, when they have no pan-

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tentative directions, are apt to add wine or spice to the mixture; but these would render it totally unfit for cases of ^{an} inflammatory nature.

- The vegetable infusions may also be allowed in these diseases. -

Such as Balm, sage, hyssop, green & black tea are harmless, and will often gratify the patient. Beetle coffee may generally be allowed; but ~~not in the~~ I would not place it among the articles lowest on the list. - Chocolate is another article that is often admissible in the milder forms of inflammatory diseases. It must not, however, be prepared in the common way; as the oily matter which it contains is exceedingly offensive to a delicate stomach. After having been boiled as usual, it should be suffered to cool, and the fat which rises to the top should be removed. - It may then be heated over again, & given to the patient. -

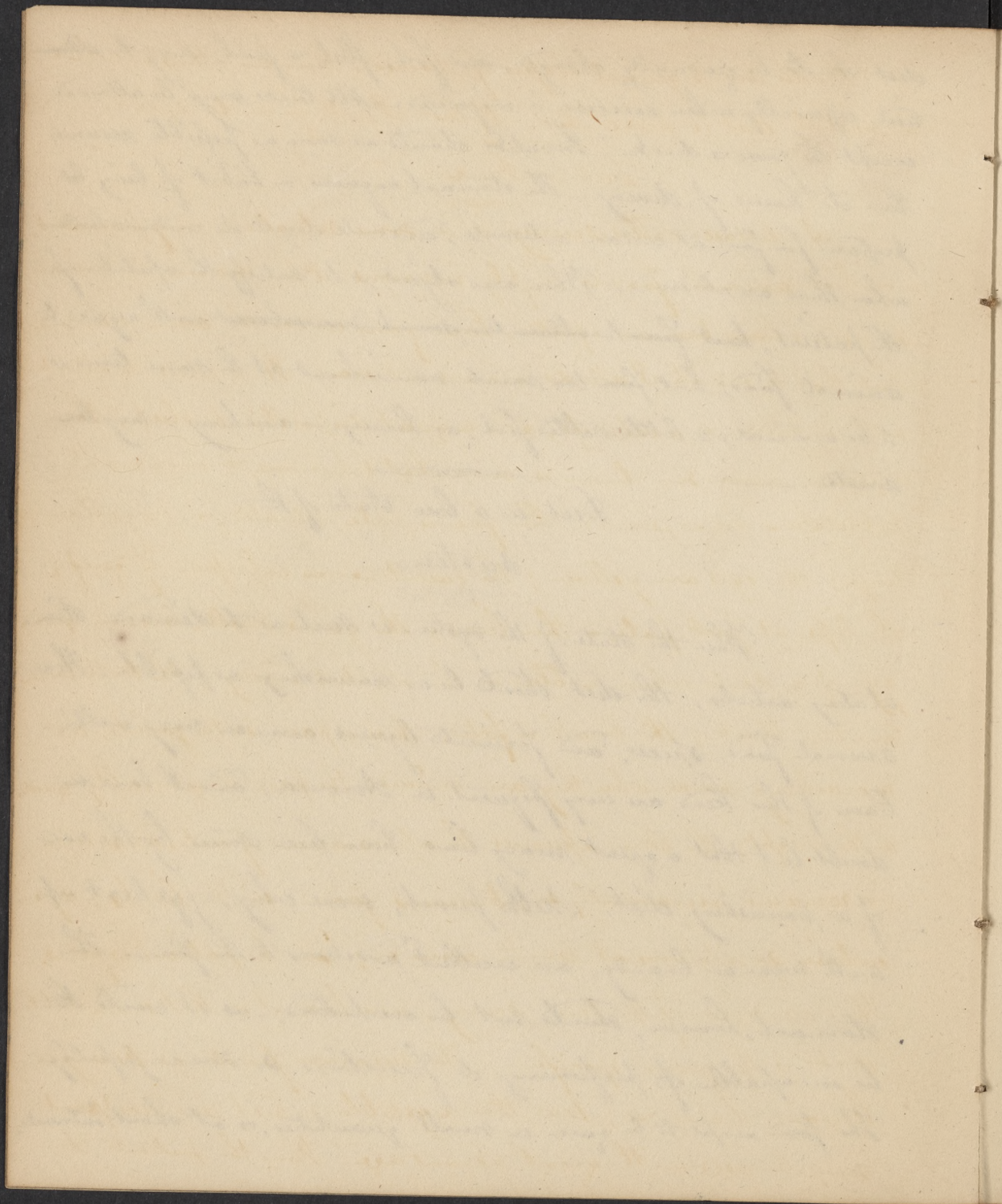
In the next degree come the lowest kinds of animal food. I would begin with the liquor of oysters, and gradually rising would allow, why, the ~~oysters~~ milk, then oysters themselves, weak chicken broth, leaf-tea, soft baked eggs &c. - These articles are not to be given, while any inflammatory symptoms remain; but after the patient has ^{begun to be} ~~become~~ convalescent. With respect to oysters I am here met by a remark of Pordyce. He says that ~~they~~ ^{they} shell fish are very difficult of digestion, and should not be allowed in the intermissions of a common fever & ague. This assertion is contradicted by the experience of all the physicians of America. In the cases of convalescence from inflammatory diseases, the

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diet should be gradually change, and fish, flesh, & fowl, may be allowed
and, especially when exercise is enjoined. All birds may be allowed
except the goose & duck. Invalids should as soon as possible resume
their old hours of dining. The stomach requires a habit of being
prepared for food at certain intervals, and will digest its contents better,
when these are observed. When our object is to satisfy the appetite of
the patient, ~~but fear to allow too much nourishment~~ with regard to
animal food; but ~~food~~ too much nourishment at the same time is
to be avoided, a little salted fish, as herring, or anchovy, may be
directed. —

Diet in a low state of the System.

When the state of the system is such as to demand stim-
ulating articles, the diet should be as nourishing as possible. Here
animal food, spices, and fermented liquors come in very well.
Cases of this kind are very frequent in America; and I have no
doubt but that a great many lives have been saved by the use
of a nourishing diet. Milk punch, wine whey, eggs beat up
with wine or brandy, are excellent additions to the food. — The
stomach, however, should not be overloaded; — as it would then
be incapable of performing its functions so successfully.
The food ought to be given in small quantities, & at short intervals.



Besides these 2 general classes of disease, there are others in which a neutral diet is demanded. — Of these I will go on to speak. —

Diet in Scurvy.

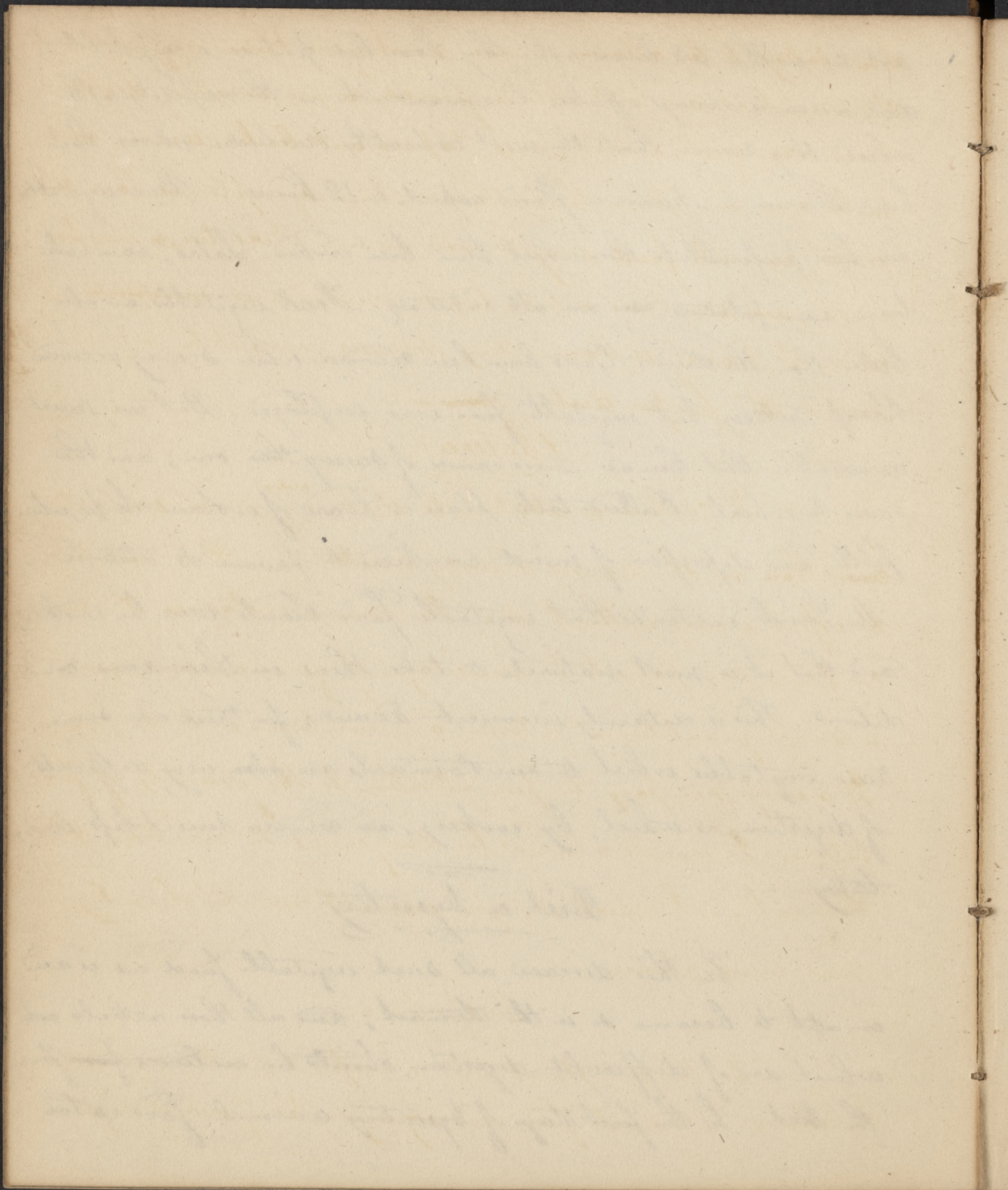
A disease called Scurvy is in some situations very prevalent, in which animal food is highly injurious. Other diseases, in which the gums ~~have been~~ are affected, have gone under the same name. But that to which I allude occurs at sea. It makes its attack with lassitude & weakness, and a great disposition to sleep. The respiration ~~becomes soon~~ becomes somewhat laborious, & occasional palpitations are experienced. The face is pale, bloated, & of a yellow tinge; the eyes are yellow; the countenance expresses grief; the lips at first pale, & then livid; the gums swell, become spongy, of a dark colour, & bleed on the slightest injury; the teeth loosen, and turn black; the breath is fetid; there is pain in the joints, and a cracking noise when they are moved; the pain is generally greater in the night; the skin assumes the appearance of cutis anserina, & remains permanently so; tumours form in the limbs; dysenteric symptoms at length come on; and the patient expires. These are signs of the true Scurvy, and here it is that a vegetable diet is the grand specific. — The summer fruits, as Oranges, Lemons, limes &c; And then vegetables which are acerbant may be used with great advantage. When the patients do



not die within 48 hours after they have been put on a vegetable diet, a cure is always effected. So remarkable is the rapidity with which they recover, that the most unhealthy scorbutic ulcers have been known to assume a florid aspect, in 12 hours. - Raw vegetables are here preferable to those which have been cooked. Lettuce, raw cabbage, raw potatoes, &c are all salutary. - Fresh vegetables are also better than the dried. Cases have been recorded where scurvy occurred though nothing but vegetable food was employed. But we must remember that there are more causes of scurvy than one; and the cases to which B. allude took place on board of a slave ship, where filth, and depression of mind conspired to favour its attacks. - Mr. Lamb contends that vegetable food should never be cooked, and that it is most natural to take them in their raw condition. This is certainly incorrect advice; for there are some raw vegetables which to our stomachs are ~~also~~ very difficult of digestion, & which, by cooking, are rendered much less irritating. -

Diet in Dysentery.

In this disease all such vegetable food as is acid, or apt to become so in the stomach; and all those articles which are of difficult digestion, should be excluded from the diet. In the first stage of dysentery animal food is too



stimulating to be allowed. You must give those vegetable substances which are best apt to ferment, & are easiest of digestion. Such are, gum-arabic, sage, tapioca well boiled, arrow root, boiled rice &c. When the inflammatory symptoms have subsided, animal food may be ~~also~~ given. Beef-tea, & chicken broth, ~~and~~ and those articles before mentioned ~~as~~ constitute at under the head of inflammatory diseases, constitute at this period the proper diet.

Cholera.

In Cholera an attention to diet is ^{every} more important ~~than~~ than in the diseases already mentioned. It is impossible to effect a cure without it. In many instances I have confined my patients to mucilage of gum arabic, given in small quantities at a time, and combined with sugar. It is very necessary to pay attention to the quantity of food taken. It would always be dangerous to overload the stomach. - I repeat it, you cannot cure Cholera by medicines alone.

Dyspepsia.

In this complaint acids & acerbant matters are extremely pernicious. Animal food, and ~~any~~ vegetables of easiest digestion

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are to be employed. I would enlarge ~~for~~ on this subject, had I not given all the necessary directions while speaking of the various or particular articles. I will only add that experience has taught us, that what will answer in one case will not in ~~other~~ another. Ham is an instance. Some Dyspeptic patients can eat hardly anything else; while to others nothing is more injurious. —

Gout

In gout, a constant adherence to vegetable food, where the stomach is in a condition to allow it, will sometimes effect a complete cure. —

Epilepsy.

Dr. Cullen says that a vegetable diet is the best method of managing this complaint. — A cure need ~~never~~ be seldom be expected. No management that has yet been discovered will do away the disease with any degree of certainty. —

Consumption & Asthma.

In consumption a vegetable diet will do more good than all other remedies. In Asthma it is often of advantage, but should never be flatulent. For the state of the stomach has great influence in this disease.

Cancer.

In cancer a vegetable diet abridges pain, & suspends the progress of the disease. I have known a case where

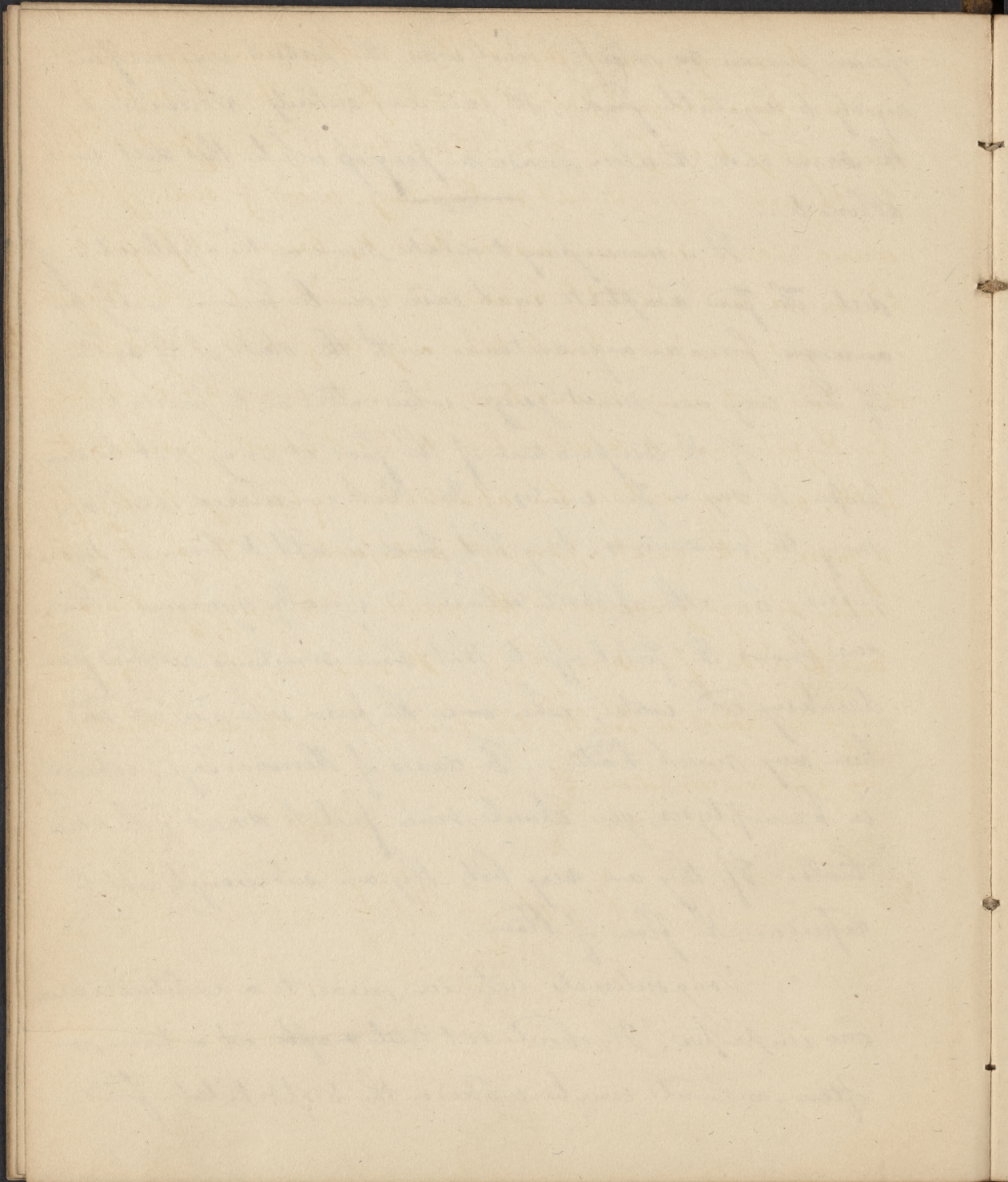
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pinion procured no relief; - but when the patient was confined rigidly to vegetable food, the pain was entirely relieved: - in the same case, the ulcer made no progress while this diet was adhered to. -

It is unnecessary to dilate more on the application of diet. The food adapted to each case can be known only by ~~a~~ acqu from an acquaintance with the state of the system. Of this every one must judge, when called on to prescribe.

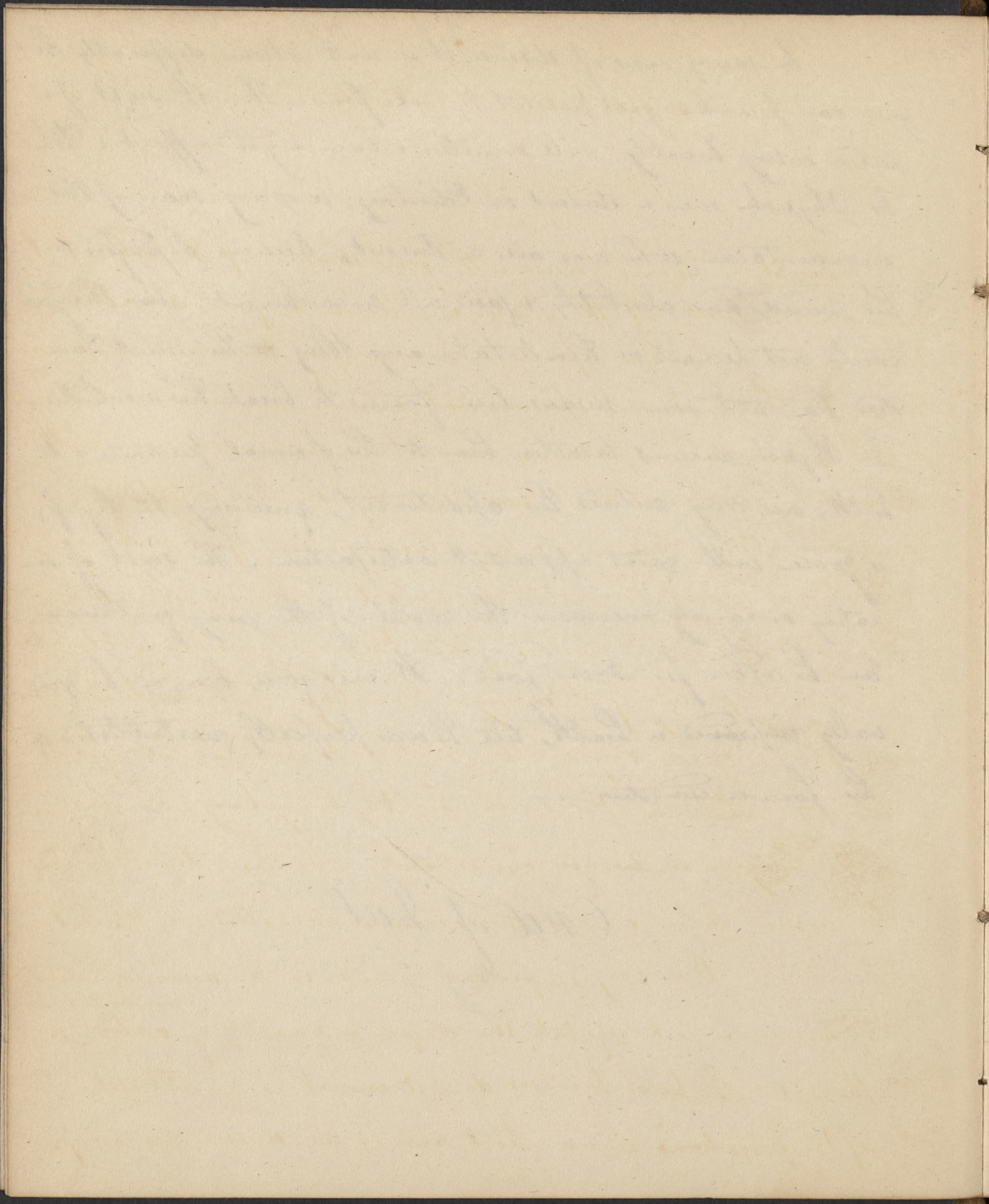
Of the temperature of the food it may not be improper to say a few words. Dr. Rush considered heat among the condiments. Very hot food is apt to bring on Dyspepsia, and the opposite extreme is equally injurious. Every one knows the fatal effects that have sometimes resulted from drinking cold water, when ~~in~~ the person who used it had been very much heated. In cases of Hemorrhage, especially in Hemoptysis, you should never fail to direct cold vic-tuals. If they are very hot, they are exceedingly apt to reproduce the flow of blood. -

Long intervals between meals to a constitutionarian are improper. He should eat little ~~at~~ often at a time, & often, & should even be waked in the night to take food.



In many cases of disease it is with extreme difficulty that you can prevail on your patient to take food. Then the sight of a person eating heartily, will sometimes have a good effect. While Dr. Physick was a student in Edinburgh, a young man of his acquaintance, who was also a student, became depressed in his mind and absolutely refused all nourishment. His friends could not prevail on him to take any thing, & he must have died had not some means been found to break his resolution. Dr. Physick, anxious to restore him to his usual pursuits & to health, one day entered his apartment, gnawing the leg of a goose with great apparent satisfaction. The sight of one eating so eagerly overcame the resolution of the young gentleman, and he asked for some food. It was given him, & he gradually improved in health, till he was perfectly reestablished in his former condition. +

End of Diet
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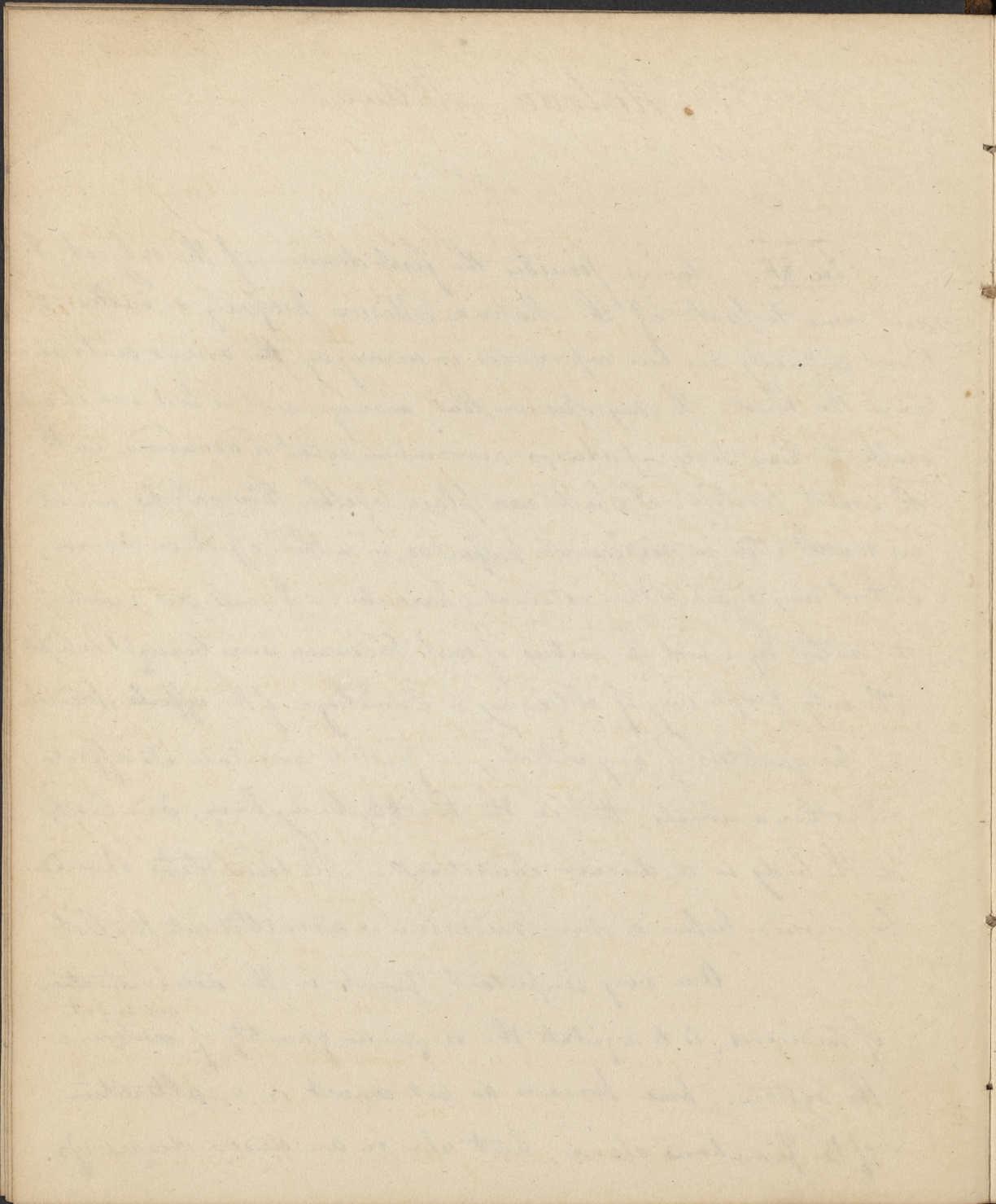


Materia Medica

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Lec. 8th. Having finished the first division of the subject, I now come to treat of the *Materia Medica* properly so called. — Great difficulty has been experienced in arranging the articles embraced under this head. In my opinion, that arrangement is best which will enable the learner to comprehend, & remember what is advanced, with the greatest facility. I shall now place together those articles which are nearest allied in medicinal properties, or in their effects on disease, without any regard to their external characters. — I shall not mention the method by which the virtues of each medicine were brought to light. The only proper way of obtaining a knowledge of the effects medicinal qualities of any article, is first to ascertain its effects on other animals, then on the healthy living body, and lastly on the body in a diseased condition. — All these steps should be pursued, before a new medicine is admitted into the list.

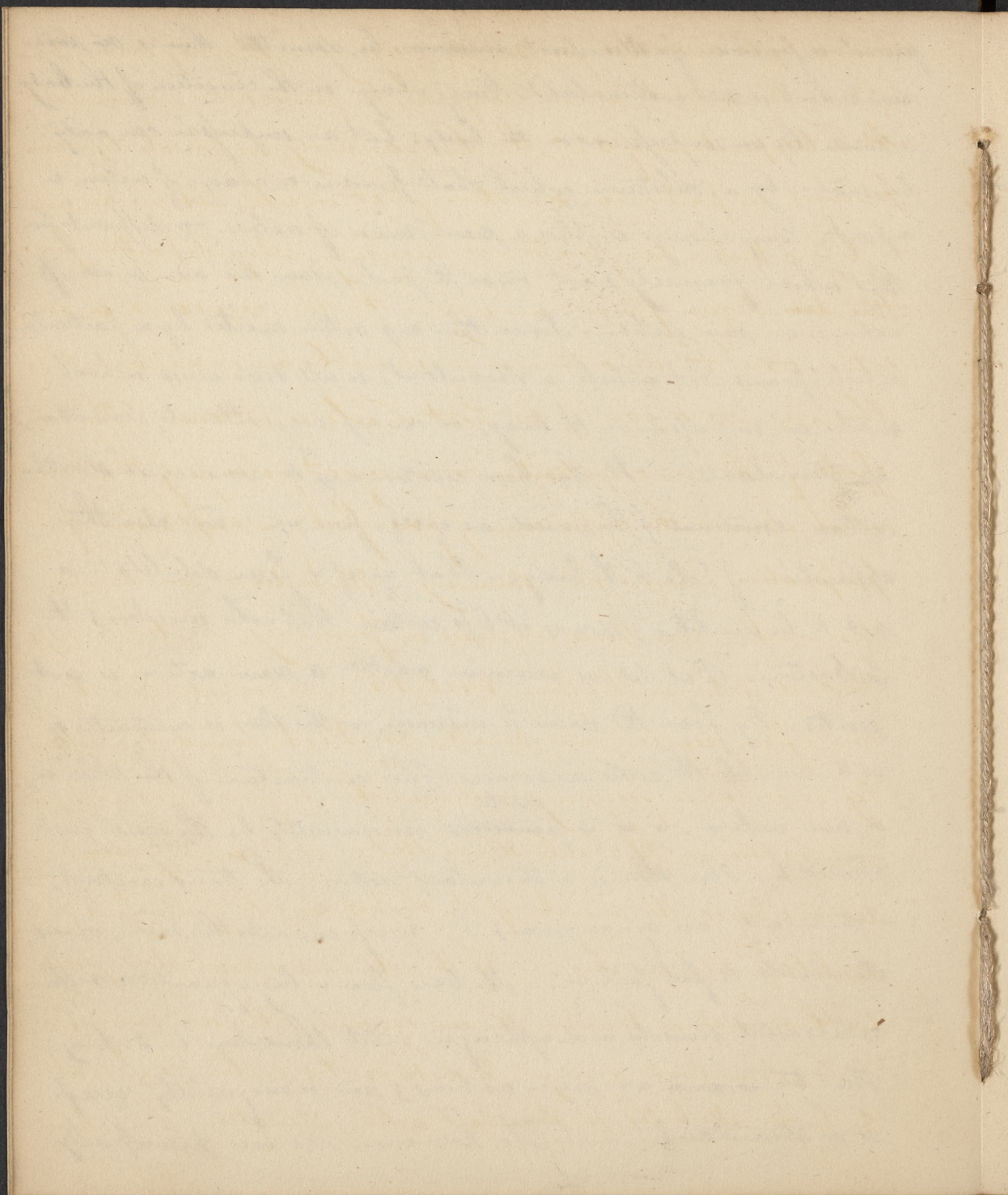
One very important point in the administration of medicines, is to regulate the degree or quantity of ^{excitement} action in the system. ~~For~~ Diseases do not consist in an alteration of the functions alone, but also in an undue degree of



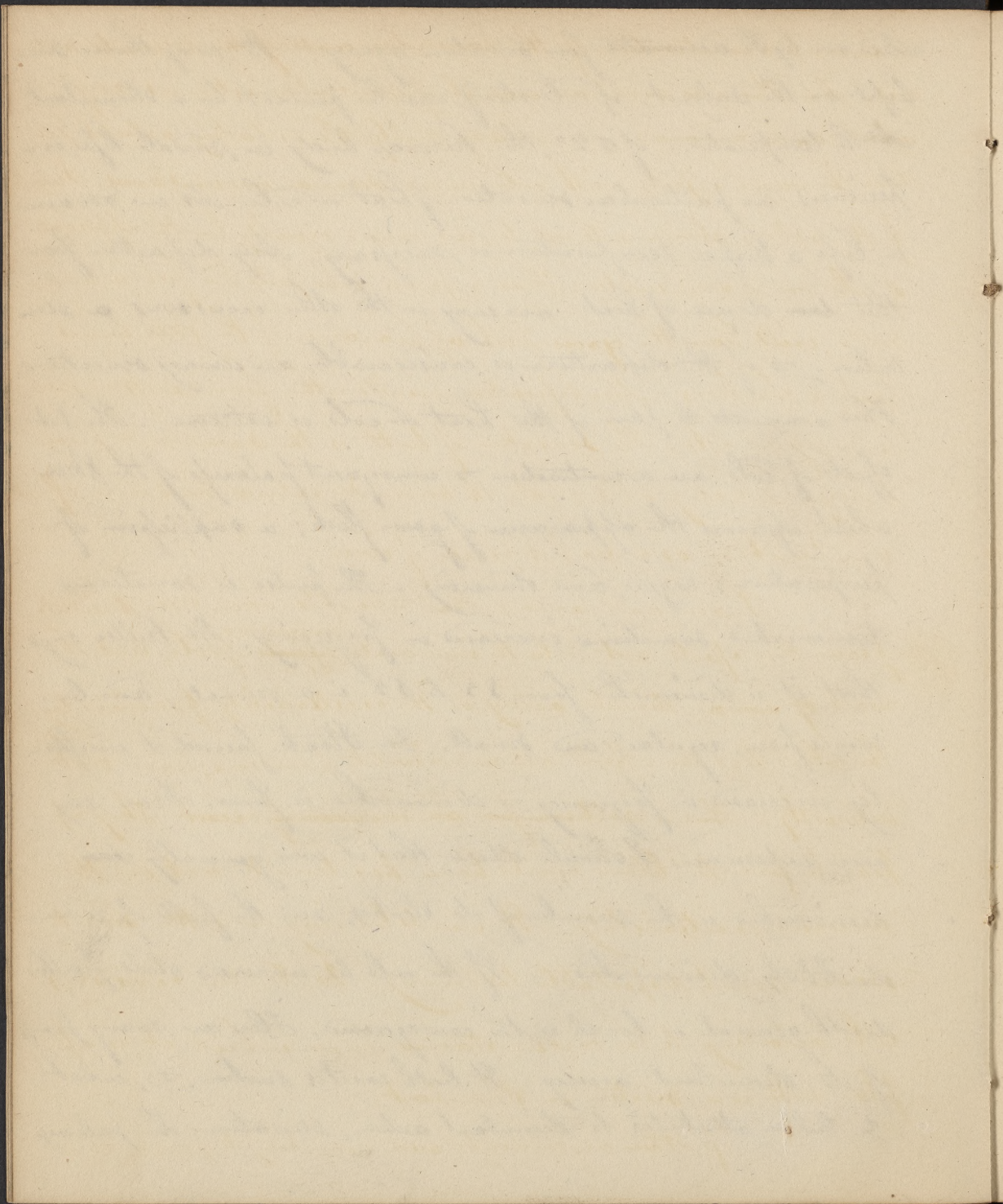
action. Fever for instance consists in an increased action of the heart and arteries. Other diseases are accompanied with a depressed condition of the system, where the ~~the~~ heart & arteries do not act with their usual vigour. Hence, according to these two states of the system, medicines have been divided into 2 classes; one calculated to excite, the other to reduce. The first are called stimulants the second sedatives. I will make a few general remarks on stimulant & sedative agents. ~~The~~ By the first is implied any thing which is capable of exciting the moving fibres. Dr. Haller also adds such as excite sensations. - As sensation necessarily ~~excites~~ implies action, I have no objection to this addition. Sedative medicines are those which directly, & without evacuation diminish the power & motion of the body. To exemplify stimulant action we may advance the effects of ardent spirits. There is an increase of the arterial action, and of muscular power; ~~an~~ greater vigour of thought, & brilliancy of imagination; and all the operations of the system, mental - as well as corporeal ~~are~~ cultivated, and go on with activity, liveliness & strength. A clear example of sedative agency is not so easily found. If it exist, however, it must be directly contrary to that of stimulants. If any medicine can be found which shall diminish the circulation, lessen muscular power, depress the intellect & imagination, & reduce ~~all the~~ the energy both of body & mind; and all this directly, that medicine is a sedative in the true sense of the word. If, however, the

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general definition of stimulant ~~medicines~~ be admitted, there is no medicine which is not a stimulant. Every change in the condition of the body is made by an impression on the body: but an impression can only be made by a substance which shall produce a change of action in a part. Every change implies a new mode of action, & different from that which formerly went on in the part. Now this new mode of action is a new action. Since then any action excited by a particular article, proves that article a stimulant, so all medicines which make an impression on the body, or in any way alter its condition, are stimulants. - It has been customary to consider as sedatives, certain emotions of the mind, as grief, fear &c; and also the application of cold to the body. - That grief & fear debilitate is not to be doubted; nor is it less certain that cold weakens the system. But let us examine whether a new action is not excited. By fear the urine is increased, & the skin is contracted so as to resemble the cutis anserina. This contraction of the skin is a new action, & it is ^{excites} ~~produces~~ immediately by the cause just alluded to. Here then is a stimulant action. The terms excitant, & stimulant are synonymous. - Grief enervates the mind, causes the appetite to fail fail &c. - The tears flow in large quantities, & the intercostal muscles & diaphragm exert themselves in sighing. - Here too ~~is a~~ are new actions, and consequently grief is a stimulant. - Cold, however, has been principally



relied on by the advocates for sedative agency. - It may throw some light on the subject, if cold itself can be proved to be a stimulant. At the temperature of 52° , the human body in middle life experiences no particular sensation of heat or cold. As we advance in life a higher temperature is necessary. Any departure from this ~~low~~ degree of heat on any or the other occasions a sensation, & if the departure is considerable, an uneasy sensation. This amounts to pain if the heat or cold is extreme. - The 1st effects of cold are a contraction & consequent paleness of the skin, which spurns the appearance of goose flesh; a suppression of perspiration; rigor, and shivering. The pulse is sometimes diminished, sometimes increased in frequency. Dr. Cullen says that it is diminished from 85 to 55 in a minute, and becomes firm, regular, and small. Dr. Stork found it uniformly increased in frequency, & diminished in force. From my own experience I should decide that it was generally ~~less~~ diminished in the number of its strokes, and the fullness is undoubtedly diminished. - If the cold be increased still further death general or local is the consequence. Here are many proofs of its stimulant agency. It both excites motion, & what Dr. Cullen attributes to stimulant action, sensation. The paleness



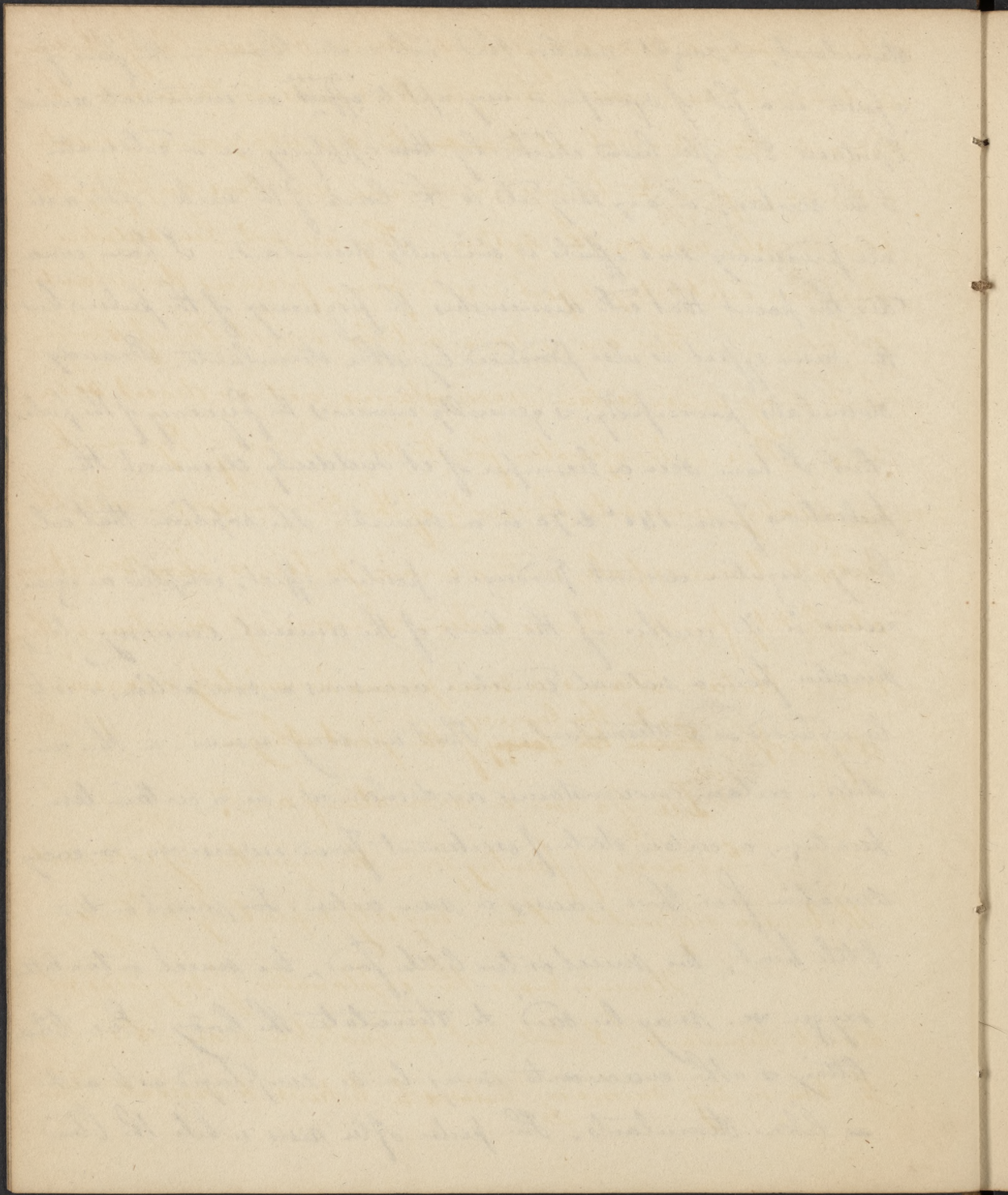
is owing to a contraction of the muscular coats of the minute arteries. ~~For~~ This is as much an example of muscular action as any which can be advanced. — Many highly stimulating articles produce the same effects with cold under similar circumstances. Several of the actions above alluded to, are caused equally by the application of cold or warm water. Thus a person who puts his feet in warm water, will have the goose flesh appearance of the skin on his back & shoulders. Mortification results either from excessive heat, or excessive cold. The sensation of both is the same. A piece of frozen mercury, will create the same sensation & the same effect when touched, as a red hot piece of iron. — 6

I am well aware that attempts have been made to prove these effects not to be the immediate ^{consequences} effects of cold, but the result of ~~an~~ stimuli acting on the excitability produced by the cold. But the effects are immediately produced, and not indirectly. ~~There is no time for an increase of excite~~ They appear before the blood could have had time to act on the increased excitability. It would be easy on either side to adduce much respectable testimony. Dr. Cullen considers cold according to the circumstances under which it is applied, either as a sedative or stimulant.

If other arguments were wanting to prove it a

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stimulant, I might mention that cold water thrown on the face of a person in a fit of syncope, is very apt to ~~effect~~^{cause} an immediate revival. Epistaxis has often been checked by ~~the~~ applying ice or cold water to the scrotum, or any thing cold to the back of the neck. An article producing such effects is evidently stimulant. I have considered the point that cold diminishes the frequency of the pulse, but the same effect is also produced by other stimulants. Brandy stimulates powerfully, & generally increases the frequency of the pulse, but I have seen a bumper of it suddenly diminish the pulsations from 140⁺ to 70 in a minute. The sophism that cold being negative cannot produce a positive effect, implies an ignorance in its author of the laws of the animal economy. Every deviation from a natural condition occasions a new action, & is to be regarded as a stimulant. That we may remain in this condition certain circumstances are demanded; as a certain temperature, a certain state of excitement from exercise &c., & every deviation from these causes a new action. Too much or too little heat, too much or too little food, too much or too little oxygen &c. may be said to stimulate the body. Even blood-letting & other evacuations may be so employed as to act as like stimulants. The pulse often rises while the blood



is flowing through the orifice from the arms. - One example of the want will be sufficient. When Glauber's salts are taken into the stomach, they stimulate it ~~to excite~~ the alimentary canal, create a discharge from the living membrane, and thus emptying the blood vessels, weaken the system. - They are not then sedative, but their debilitating effect results from a previous stimulant action. - There are certain articles, which though stimulant, may under certain circumstances, act as direct sedatives. Thus in the operation for the radical cure of Hydrocele, in injecting wine into the cavity of the tunica vaginalis, the patient becomes pale, with a weak pulse, & ~~also~~ sometimes absolutely faints. Here is a clear specimen of Sedative influence. Certain odours in some persons invariably occasion syncope. ^{In this language} Hence the ~~language~~ of the poet -

"Die of a rose in aromatic pain."

Instances of fainting from the injection of wine into the tunica vaginalis I have myself repeatedly witnessed.

Having made this explanation of my ideas relative to stimulants, I shall not be mistaken when I employ the term in my succeeding lectures to indicate those

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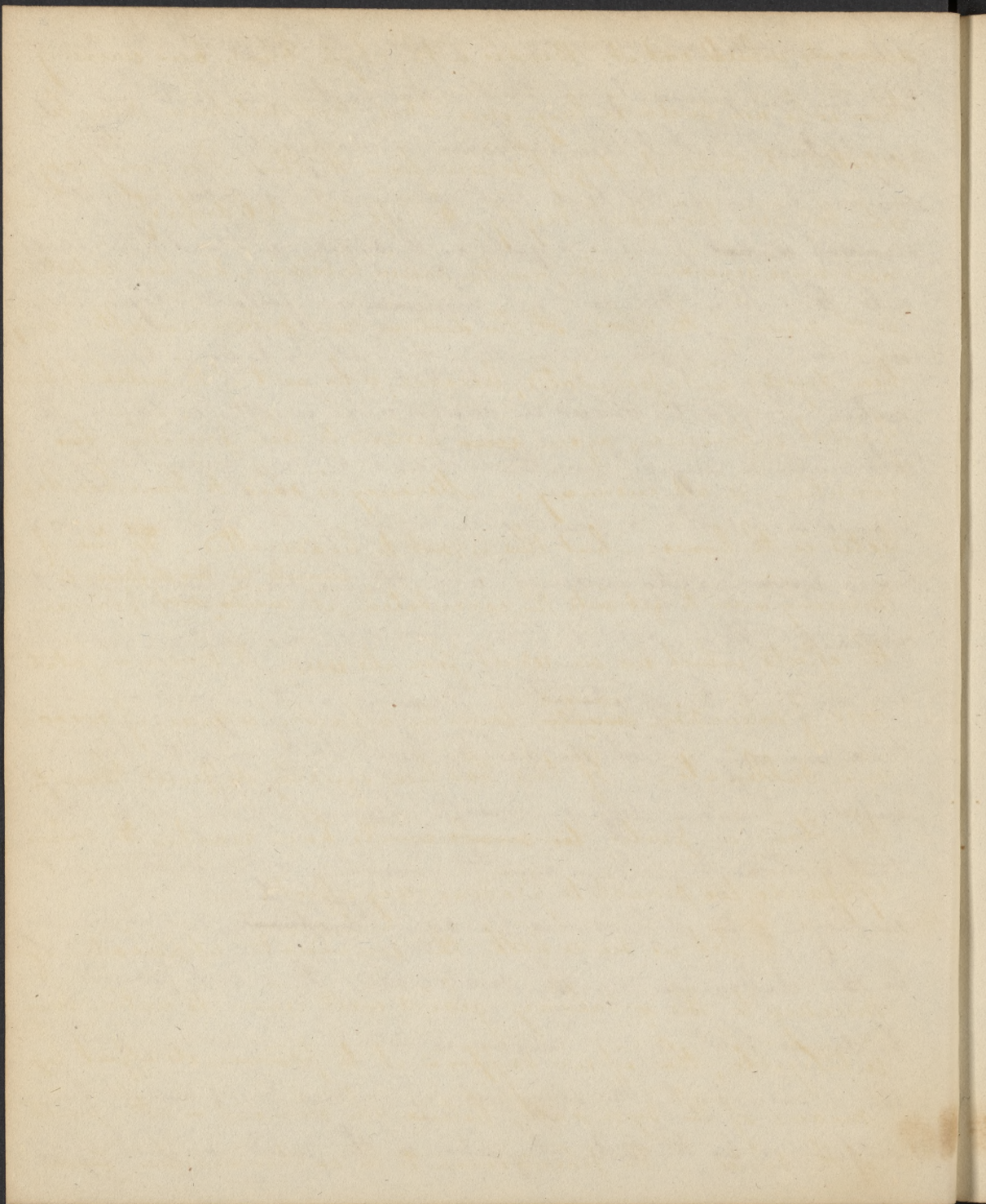
articles which excite the vital functions into action. Dr. Murray to this class gave the name of narcotics. To call the volatile alkali by this name, a substance which never produces sleep, is a conjunction of terms which should not be admitted. - The most stimulating articles possess various other properties. Thus spirit, besides its general ~~and~~ power of exciting the system, will ~~also occasion~~ ~~sleep,~~ may also be determined to particular parts, & produce various effects. Under the head of stimulants, I shall consider only those substances which are commonly used to excite general action -

Having explained what I conceive to be the nature of stimulants, I am now to examine how Medicines act on the body. This is a subject which early attracts attention, and which is of great consequence in practice. To comprehend the action of Medicines or general knowledge of anatomy, & Physiology is indispensable. Chemistry also is of ~~use in~~ some advantage. - But neither any one nor all will carry us beyond a certain distance. ~~We may advance~~ There is a point to which we may advance, Des non ultra.

I shall not mention all the theories which have been advanced on this subject. Only two are deserving of our attention. One supposes that Medicines produce their effect

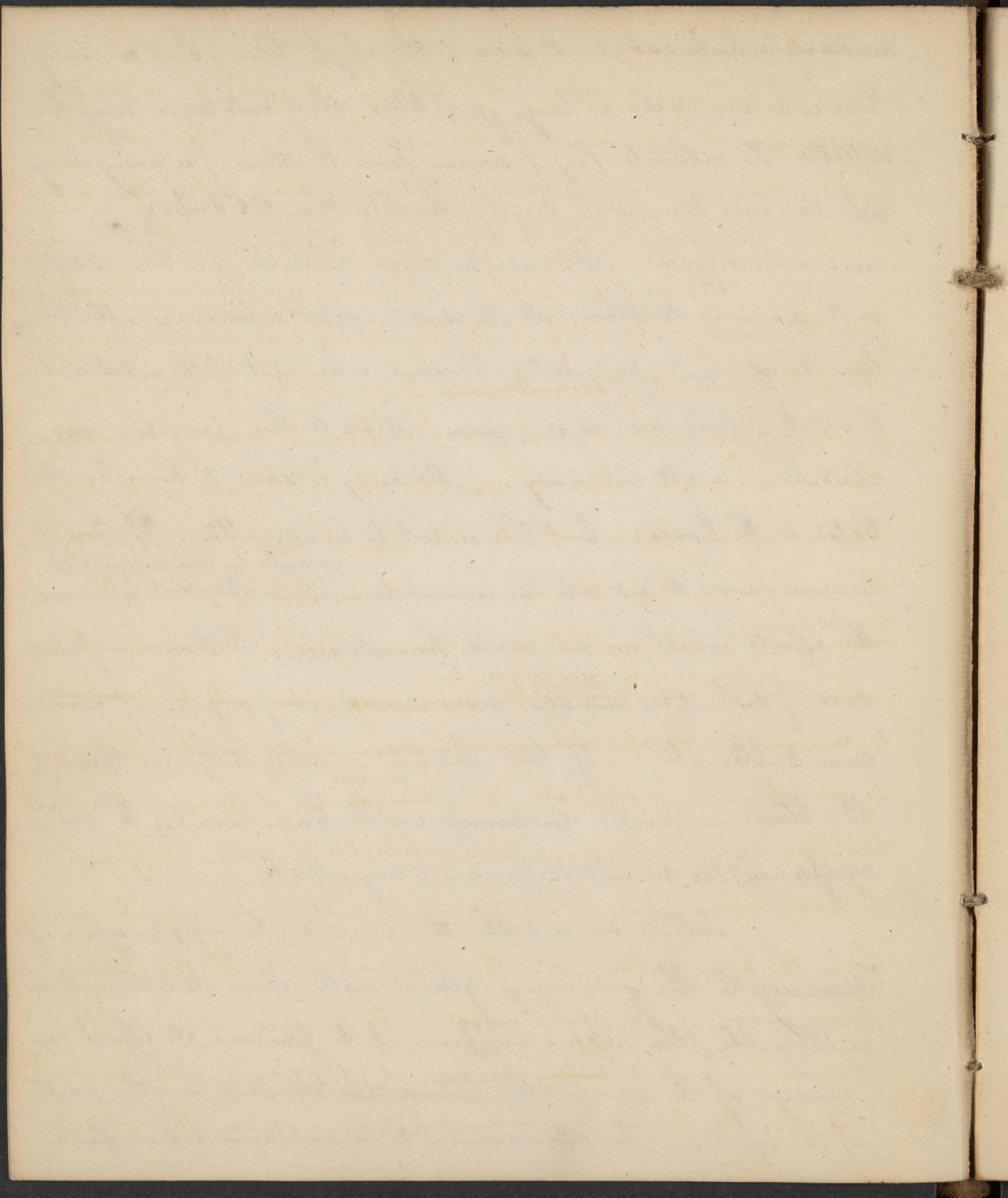
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by being absorbed and acting on the fluids of the body; the other supposes that they act primarily on the stomach or the part to which they are applied, and that their influence is conveyed by sympathy. There can be no doubt but that many articles taken into the stomach do ~~not~~ produce effects on the system without being taken into the vessels. Wine & opium ~~produce~~ are followed by a general affection of the system before they possibly could have been absorbed. If this be denied we can advance another instance. The cold water in very hot weather is drunk in large quantities by a person who is heated, a spasmodic action of the stomach is sometimes immediately induced, and the heart & arteries cease to contract. It is established then, that there are medicines which act without being absorbed. We are next to inquire whether there are any which do act by being taken into the blood-vessels. Digestion differs from all chemical processes in this, that instead of yielding results according to the substances employed, ~~it~~ it produces the same ^{homogeneous fluid} material, whatever may be the difference in the materials. It is not however, to be denied that certain substances enter the circulation unaltered: this is indicated by the salty taste of certain birds which live on fish, & by the taste of garlic in the milk & flesh of ~~the~~



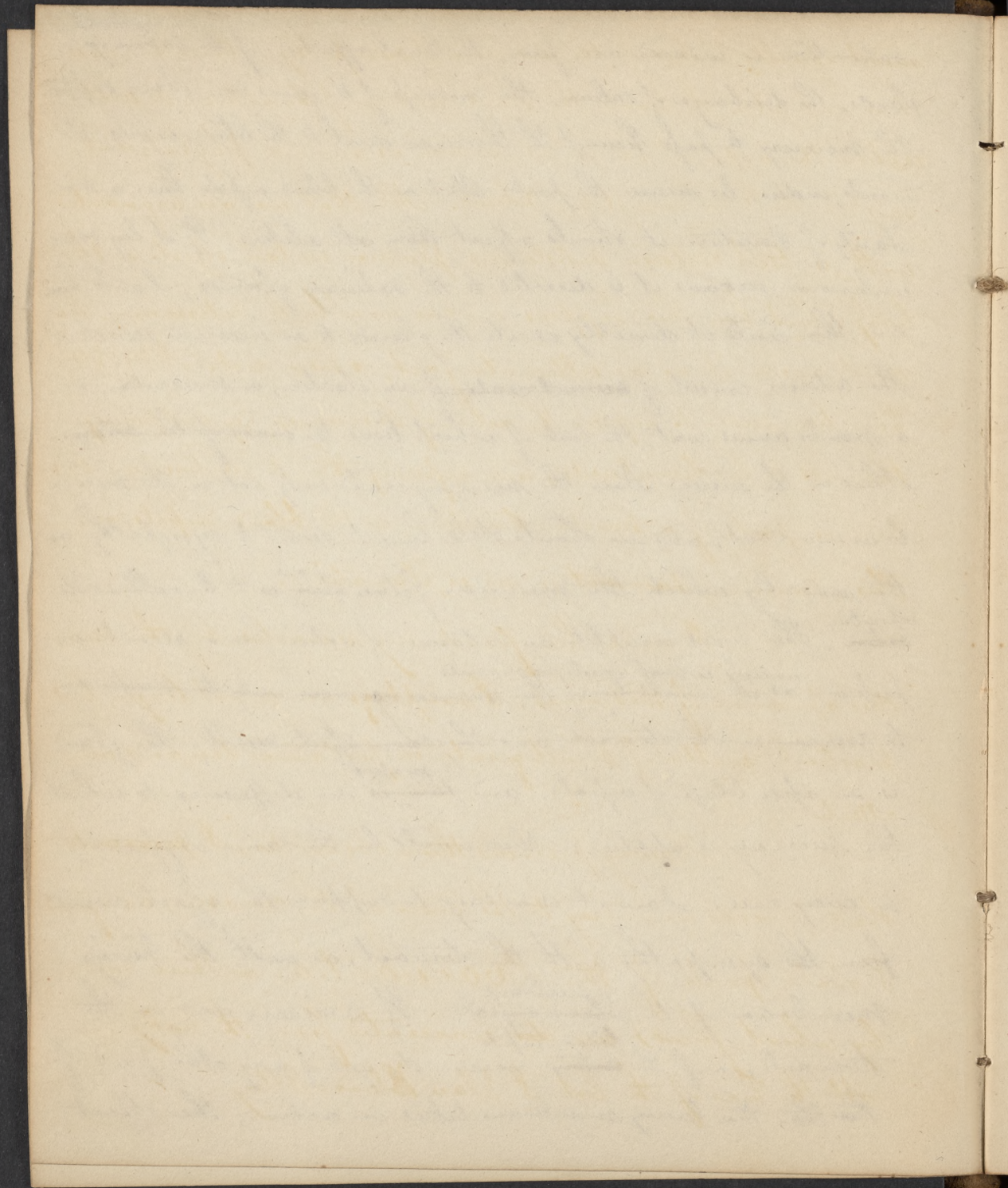
animals, which eat it. Besides in the chyle, blood, and urine of those who use soda in large quantities, that substance may be detected. To saturate 1oz. of serum from the blood of a young lady who had used this alkali largely, no less than 20 drops of acid were required. Nitre, another saline substance, has been detected in the serum of the blood. ~~At~~ The doctrine that substances after having been digested and assimilated, become, when out of the ~~vital~~ sphere of vital influence, again ~~renew~~ restored to their primitive ~~for~~ condition - is all visionary: - Mercury is said to have been detected in the bones: - but this is not to be admitted. ~~If~~ Even if mercury were to get into the circulation, it ^{would be too diffused to} ~~would not~~ produce the effects which we see result from its use. I knew a fatal case of salivation ^{caused} ~~resulting~~ from by a part of a grain of corrosive sublimate. - If this had been equally diffused through the blood a portion ~~too small~~ would have reacted the salivary glands, too small to produce any effect. -

Let us see whether the immediate application of mercury to the salivary glands will render its action more intelligible, than if we suppose it to produce its effect by means of the sympathy between the stomach & other parts of the system. - The phenomena to be explained when ~~from~~



salivation is induced are, fever, the local affection of the salivary glands, the discharge of saliva, the soreness of the gums &c. Now suppose the mercury to pass through the thoracic duct to the blood-vessels, it would, indeed, be nearer the point. But as the blood-vessels have a similarity of structure it should affect them all alike. If by some unknown means it is directed to the salivary glands; I ask how can then could it directly excite the glands to an increased secretion?

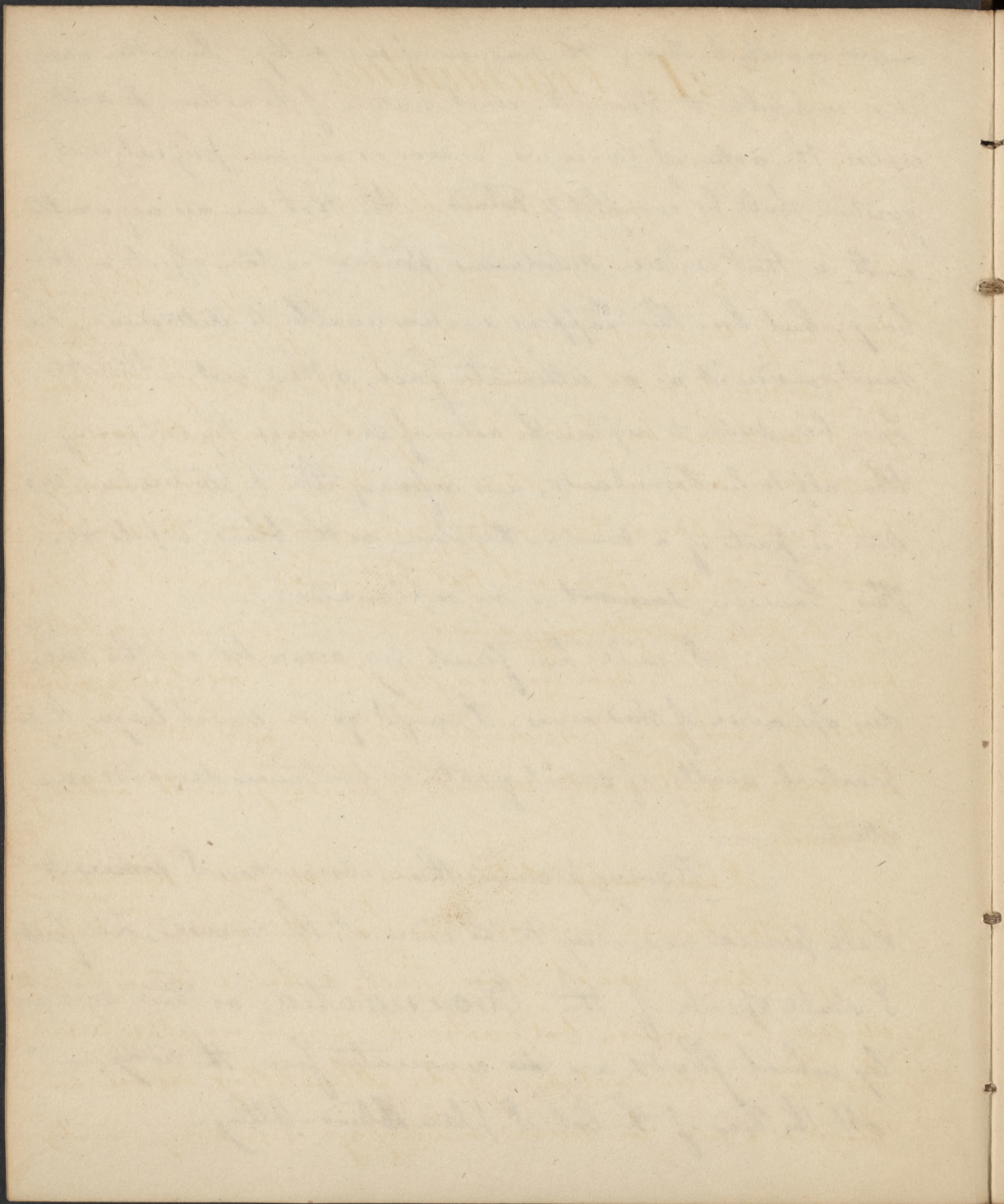
The arteries consist of ~~several coats~~ of an elastic, a muscular, & a membranous coat, the last of which lines the ~~inside of the artery~~. Others on the inside. Now the mercury could only act on the membranous coat, and we should still have to resort to sympathy as the mode by which the muscular fibres ~~there~~ ^{are} to be called into ^{operation or} action. This is as complete an instance of action from remote impression, as any which could be named. ~~as it would be if the mercury were only to make an~~ ^{as any which could be named.} ~~to remain in the stomach, and the same effects result.~~ The gland is an assemblage of vessels, and ^{it makes} ~~there is~~ no difference to which the mercury is applied: - there would be the same difficulty in every case. Now it is as easy to suppose the effects result from the sympathy with the stomach, as with the lining membrane of the ~~blood-vessels~~ ^{arteries}. If mercury act on the stomach, or if the ~~artery~~ ^{blood-vessels} receive it, yet if any other part of ~~them~~ ^{than the lining membrane takes on action}, the effect



must equally be through the medium of sympathy. In either case it is impossible to know the exact nature of the action. I will explain the action of medicines, as soon as any one physiological question shall be completely solved. All that we are acquainted with is, that certain substances produce certain effects on the body; but how this happens we are unable to determine. We must consider it as an ultimate fact, & there rest. Attempts have been made to explain the action of medicines, by supposing them all to be stimulants, and referring them to particular systems, or parts of a similar structure, as the blood-vessels &c. — This, however, ~~does not~~ is no explanation. —

I will here finish my remarks on the modes of operation of medicines. I might go on much longer, but practical matters of much greater importance demand our attention. —

Having premised these observations, I ~~proceed~~ to shall proceed according to the order of the course; and first I shall speak of the Evacuants, or those medicines by which fluids are ~~dis~~ evacuated from the body. — At the head of the list I place Blood-letting. —



I. Evacuantes

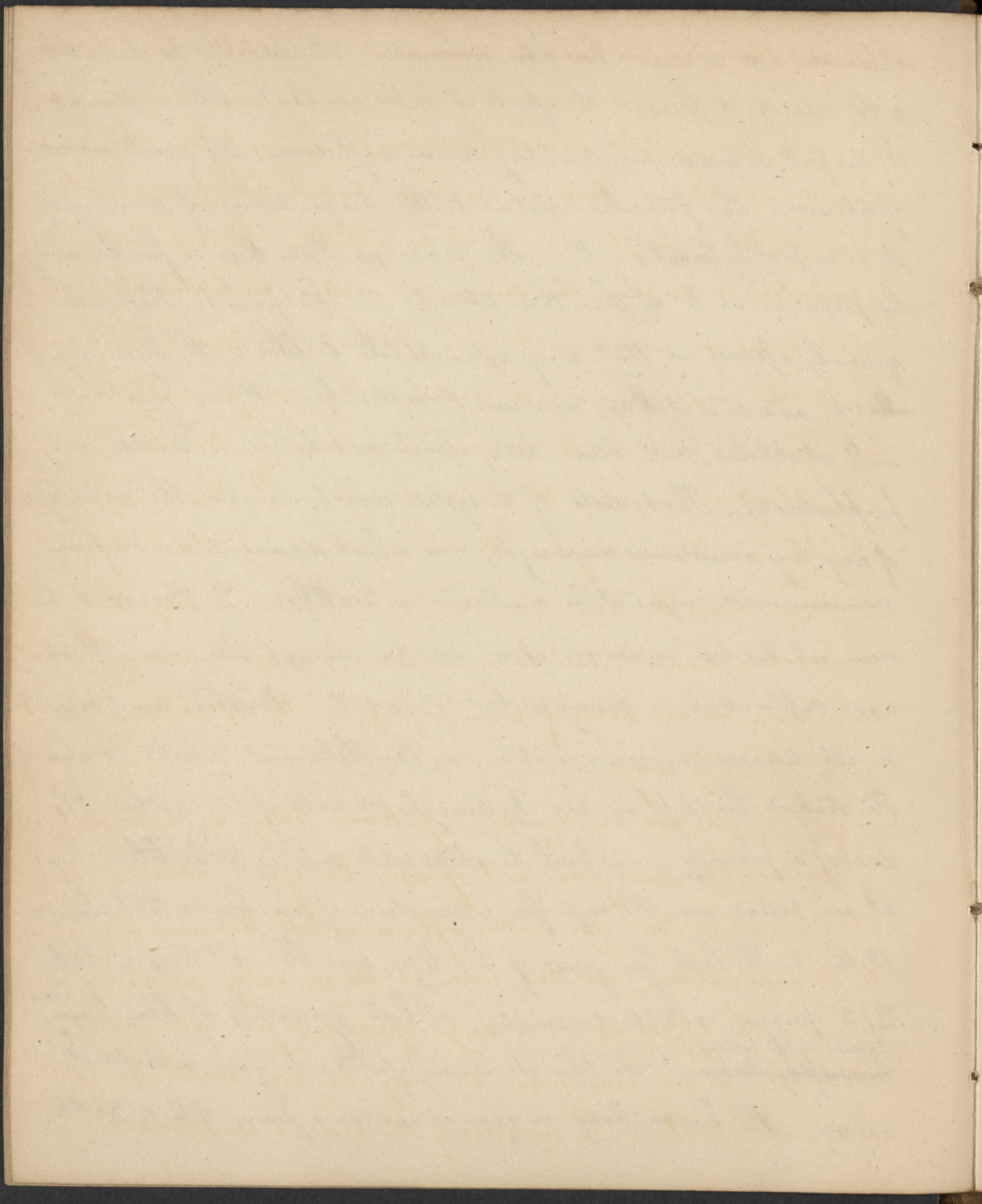
1st. Blood-letting.

Pg.

The abstraction of blood from the body, is the most powerful of the means in use for the purpose of evacuation. The opening of a vein, to withdraw blood, is of great antiquity. The operation is said to have been first performed by Podalirius, the son of Aesculapius, who, on his return from Troy, being shipwrecked on the coast of Caria, had his life preserved by some ladies of the country. These soon found out that he possessed medical talents; and, the King's daughter being insensible in consequence of a fall, presented him to the sovereign as a physician. Podalirius opened a vein in each arm, preserved her life, and afterwards received her hand; a well merited reward, if he really was the author of the remedy. -

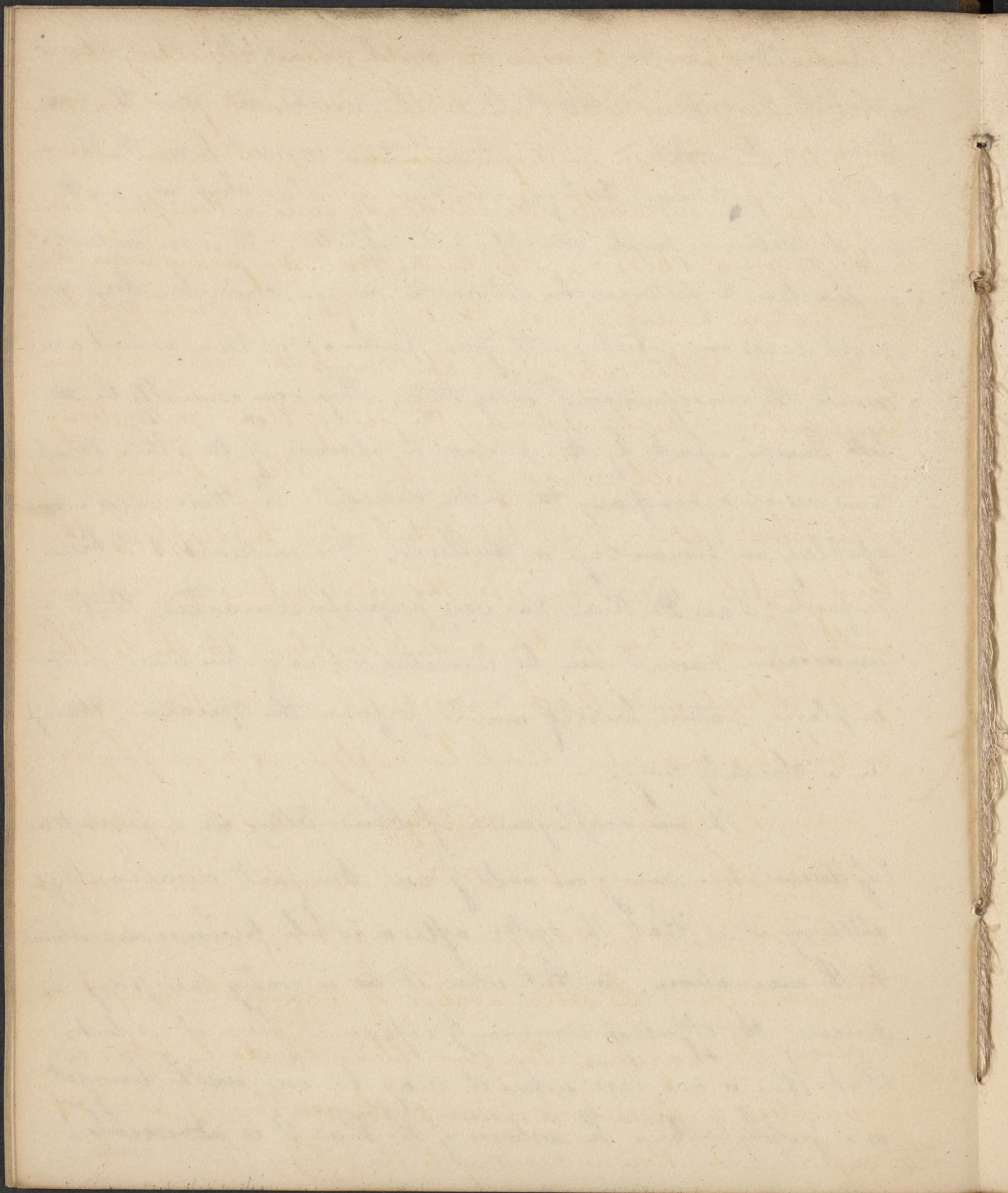
I have before stated in one of my former introductory lectures, that, though medical theories are often varied, yet medical practice is much more fixed; & that, whatever hypotheses may be advanced, that practice is pursued, which experience has shown to be most successful. Blood-letting has been employed as a cure for diseases in every age, & in every country

when medical science has been cultivated. Hippocrates advised bleeding in the spring, to prevent the effects of summer heat. Others thought it useful in ~~prevents~~ counteracting lunar influence. A great variety of opinions has prevailed, relative to the proper times of employing it as a prophylactic. Even the moderns have been so far too away by prejudice as to ~~at~~ turn their attention to this point. Hoffman gravely assures us, that every man should be bled in the beginning of March, and end of May, and end of September. It is a fact now well established that blood-letting should not be used in health, as a prophylactic. That state of the system which occurs on the suppression of any long accustomed discharge, & in which venesection is properly recommended, cannot be considered as healthy. In diseases, however, it has been variously used; and has always had many strenuous supporters, & many violent opponents. Botellus employed it in all diseases indiscriminately, & Van Helmont rejected it entirely. He staked his life on his principles, & both felt together. He died of a pleurisy in which he obstinately refused to be bled. Such at one period was the rage for evacuations of all kinds, that Louis 13th. in the last few years of his life, was bled 47 times, took 215 purges, & 210 enemata. That quantity of blood ^{is contained in the system} ~~may~~ ~~be safely taken~~? To this it is impossible to give a definite answer. The human body in general contains from 25 to 30 lbs.



of blood. How far this may be increased I cannot tell. That there is a state of the system in which there is too much, and where there is a tendency in the vessels to relieve themselves, is evident from the hemorrhages, apoplexies, vertigo, insensibility, disturbed sleep &c. with which plethoric people are apt to be affected. It is important in practice to distinguish between the vertigo, disturbed sleep, &c. which result from plethora; & those which are merely the consequences of indigestion. They can generally be ~~be~~ known apart, by the presence or absence of the other symptoms which accompany the latter disease. In those cases where apoplexy or hemorrhage is threatened, it is important to bleed profusely; and Dr. Rush has very properly remarked, that venesection cannot here be unnatural; as, if this were not employed, nature herself would perform the operation, though in a slower way. ---

The ~~use~~ employment of blood-letting as a preventive of disease has now gone out of use. One great disadvantage attending it is, that the system after a while becomes accustomed to the evacuation, so that, when it ~~be~~ is really necessary in disease, the effect ~~of~~ commonly experienced from it is lost. But there is one case where it may be used with benefit as a prophylactic. In injuries of the head it is advisable



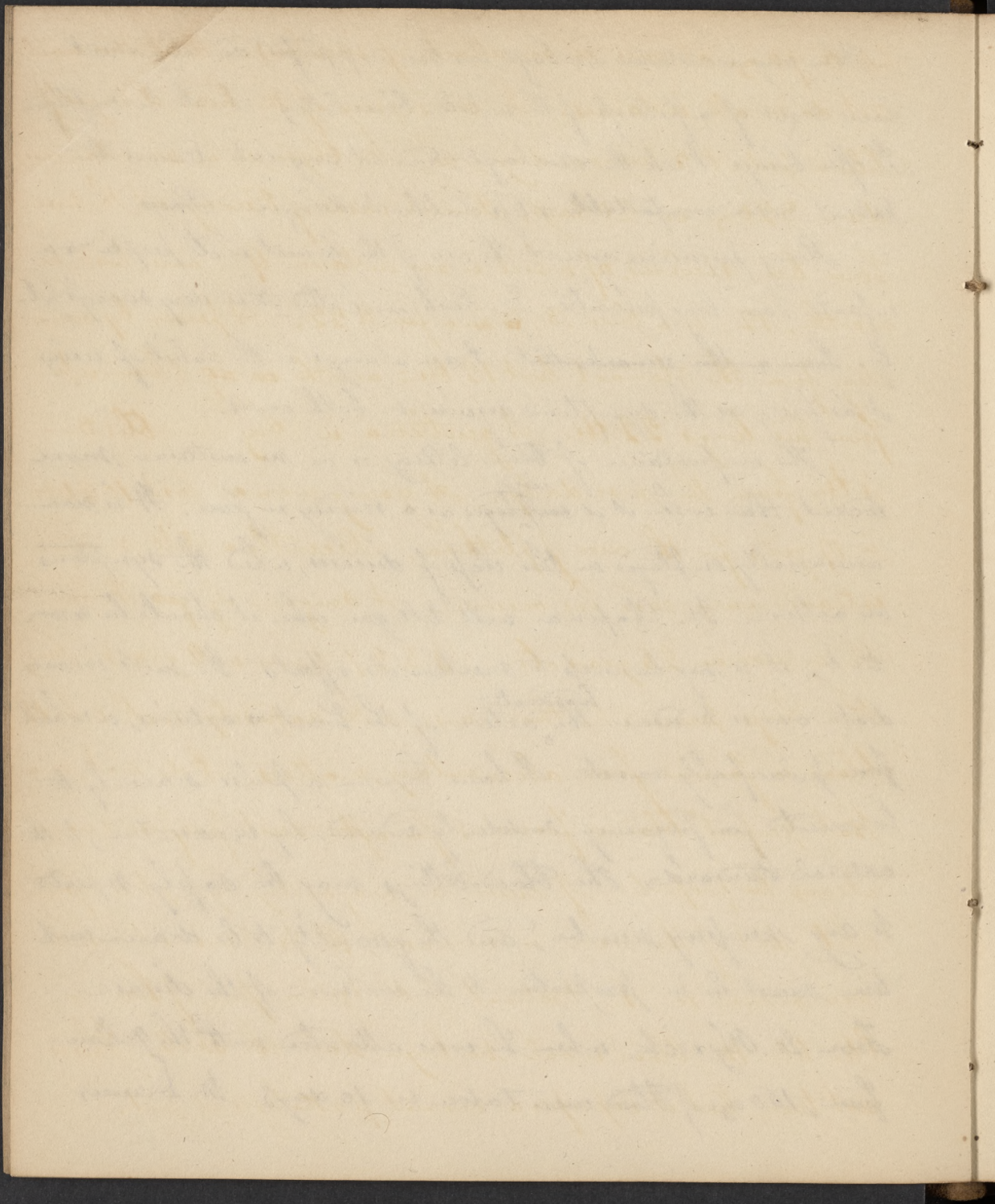
to withdraw blood, & to reduce the system, thus preventing the
injurious consequences which would otherwise result from reaction.
Mr. Bell says that in cases of ~~convulsion~~ injured brain when
the patient is insensible, the landlady gives a bumper of brandy,
& the physician bleeds; and he thinks that the former is right.
Now nature herself declares the impropriety of such practice,
by the insensibility into which she throws the person who has
been injured: - thereby restraining the flow of blood, & hindering
as much as possible effusion from taking place. By all means
let us assist nature; and this is to be done by emptying the
blood-vessels. Otherwise, when the vital actions are resumed
with vigour, extravasation will take place, & the death
of the patient will be the consequence. - Another case
in which venesection should be employed as a prophylactic,
is when the eye has been injured by mechanical causes, &
inflammation is apprehended. That the vision may be perfect,
the cornea must be transparent: - but inflammation in
this part causes the extravasation of coagulable lymph, &
renders it opaque. Therefore blood should be taken in
quantities sufficient to prevent the accession of more ~~of~~
inflammation than is necessary to the healing of the ^{injury} ~~wound~~.

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When any accustomed discharge has been suppressed, and the patient shows signs of a fullness of the vessels, blood-letting should be employed. It often brings back the discharge; and at any rate renders the patient more comfortable & less liable to danger. Page

Strong prejudices against the use of the lancet in old people & in infants have long prevailed. Dr. Rush combated these very successfully. Some ~~as these~~ remarks that I am always in the habit of using it as freely as the symptoms require in both cases. -

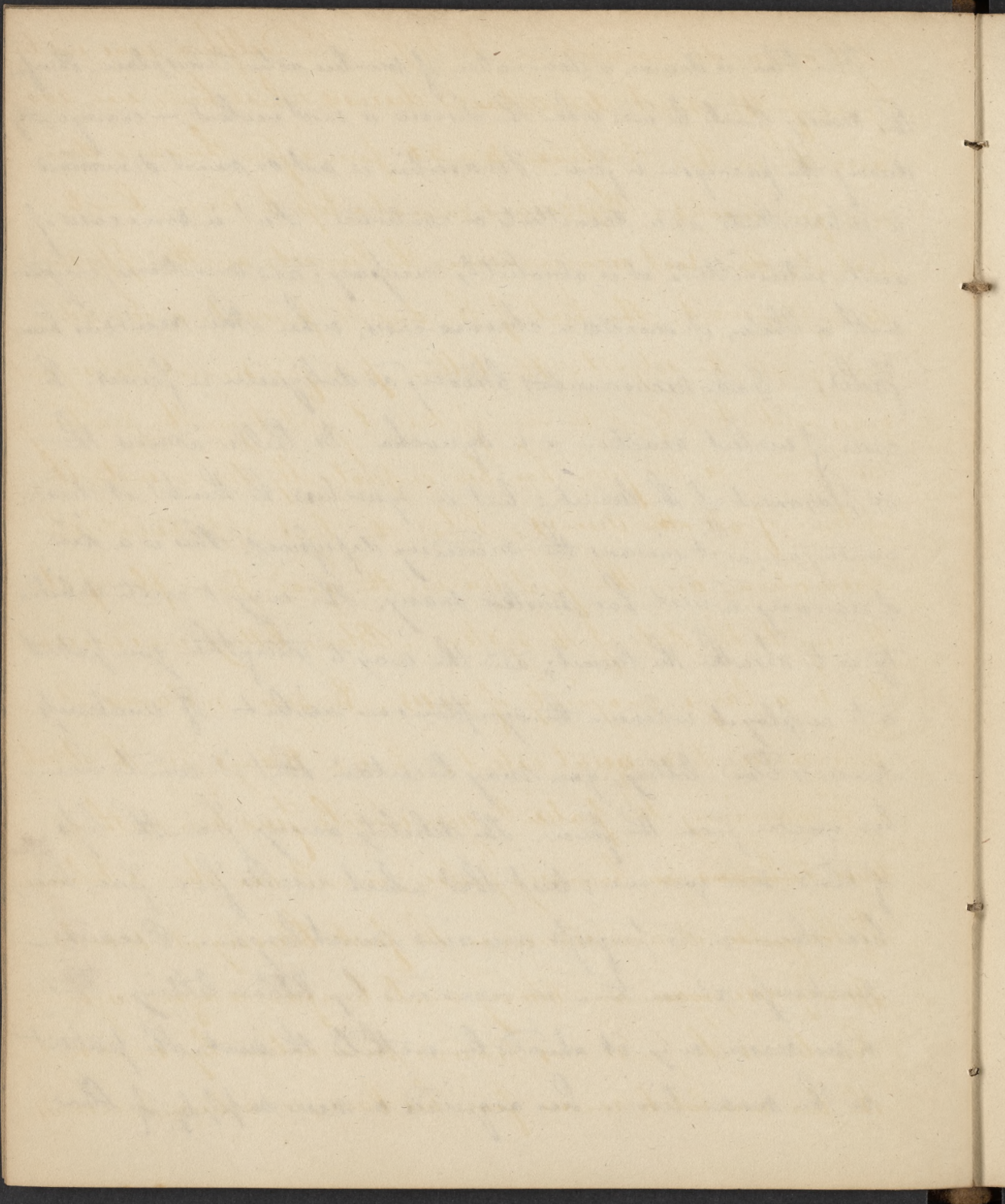
The importance of blood-letting is in no instance more evident, than when it is ^{used} employed as a remedy in fever. It is now universally employed in this class of diseases, when the symptoms are active. Dr. Chapman will tell you when it should be resorted to; it is my business to mention its effects. Its most immediate one is to reduce the ^{inordinate} action of the heart & arteries, in which fever principally consists. I have known a pulse scarcely to be counted for frequency, suddenly reduced, by venesection, to the natural standard. The blood-lettings may be safely repeated to any necessary number, and the quantity to be drawn each time must be in proportion to the violence of the disease. - From Dr. Physick, when he was attacked with the yellow-fever, 100 oz. of blood were taken in 10 days. Dr. Dever



lost 890 oz. at once in an attack of incubus. - But this would
not do in all instances. In an injury of the head I myself
bled a patient 5 times a day; and Mr. Olyn, in a similar case
drew 320 oz. in 20 days. Several cases of bleeding at the nose
have been recorded, of which in one instance 9 were lost, in
another, 12, in a third, 18, in a fourth 22. A person by vom-
iting from the stomach lost 12 lbs.; another ~~in~~ by throwing up
from his lungs 22 lbs. A gentleman in Ang. - bled 30-
15 lbs. from the nose daily. A young woman lost 1020 lbs.
in 19 years for the cure of plethora. Recently a still more
extraordinary case has occurred. A Surgeon of ~~the~~ France
bled a woman 26 years old - 6527 times in 2 years. Among
other things proved by these cases, is the rapidity with which
blood is formed from alimentary matters. I do not mean
that perfect blood is formed; for after such profuse evacua-
tions the proportion of cruer, & coagulating lymph is lessened,
while that of the serum is increased. Dr. Rush & Physick
were accused in their treatment of the Yellow Fever, of having
bled till the blood would no longer stain the sheets. This is
not true, but it expresses a correct pathological fact.

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When blood is drawn a diminution of morbid action takes place. Therefore this remedy should be used when the disease is most violent, & consequently during the paroxysm in fever. Phlebotomy is not so much demanded in intermittents as in Remittents or continued. But in some cases of acute intermittents it is absolutely necessary, and sometimes, combined with a blister, it succeeds in chronic cases, when other remedies have failed. - Galen recommends bleeding as deliquium in fevers. In cases of violent reaction & in synocha Dr. Cullen advises the employment of the lancet: but in synoches he thinks it disadvantageous, as it increases the succeeding depression. This is a kind of reasoning which has misled many. The way to create debility is to sheathe the lancet, and the way to strengthen your patient, is to employ it whenever the symptoms are violent. If weakness succeeds blood-letting, you may be certain that it would have been greater from the fever. The debility arising from the loss of blood soon goes over; but that which results from fever, having been shown in its progress remains much longer. Because weakness at one time is occasioned by blood-letting, this is no reason why it should be withheld the next. The patient in the mean time has acquired a new supply of blood,



which demands evacuations. In 1793 Philadelphia was visited by one of the most destructive diseases which have ever ravaged the earth. Between ~~4 & 50~~ four & five thousand died in a few weeks. Physicians were at a loss to know how to treat it. One sect recommended the lancet, another opposed its employment. The heat of the dispute prevented a candid inquiry into the subject. The yellow fever for several subsequent years visited the city, & in one of these I first began the practice of medicine. As this fever has been emphatically denominated the epitome of all ~~the~~ diseases, I had the best opportunities for observation, and then first learned the grand principle of attending to the state of the system. Blood letting was indicated in a large majority of cases. In some instances it was carried to a great extent. In 2 or 3 days from the attack, on examining the patient you would find him with a tense, ~~laboured~~ bounding pulse; or with one slow & laboured. If ~~the pulse~~ it were reduced on the first bleeding, it would ~~spontaneously~~ rise, again and bleeding would be again & again required. Sometimes the pulse was rendered more active by venesection. The lion was ~~let~~ roused from his lair, & active measures

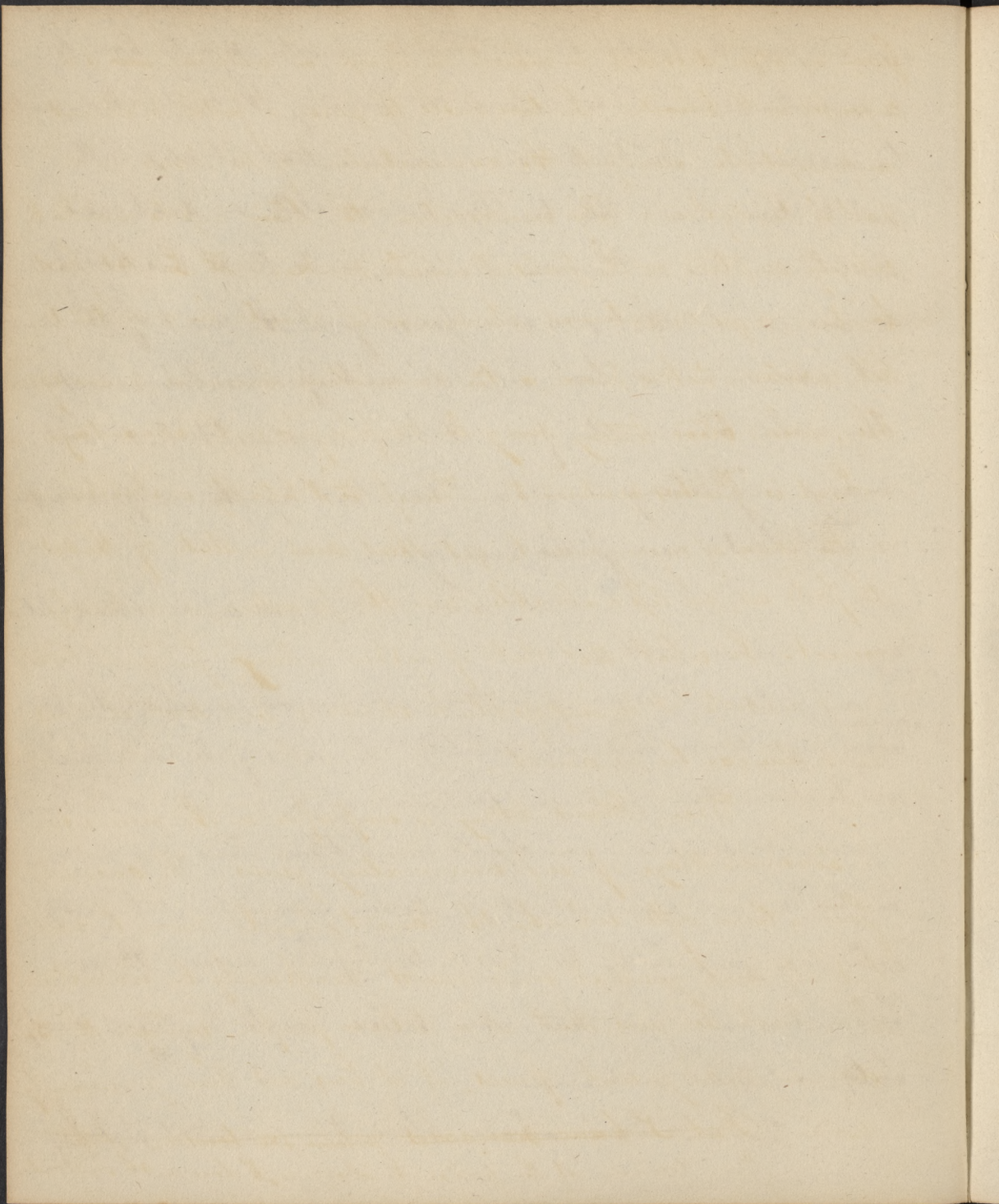
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were necessary to subdue him. — Here the operation would have to be repeated several times, before the force of the circulation could be overcome. Dr. Rush used to observe that it was better not to bleed at all than to bleed immoderately in such cases. Botetune in his enthusiasm declares, & Dr. Rush has received the sentiment, that 100,000 perish from the want of the lancet, where one is lost from its improper employment. — They went, however, too far. I have no doubt but that many very many lives have been lost by the imprudent & unskilful use of this remedy. —

L. 10. — I will now state some of the cases where blood-letting is inadmissible.

1st. It is wrong in those instances ~~at~~ in which the predominant symptoms indicate debility. In cases of Typhus Fever, and Typhous Pleurisy, when prostration of the strength is the most remarkable symptom, you should never bleed. There is a pulse in these diseases which is apt to deceive young practitioners, called very properly by Dr. Rush, the Typhous pulse. It is frequent & often full, but when pressed beneath the fingers easily yields, & possesses no tension.

2nd. Dr. Rush forbade blood-letting in that state of



fever or other diseases, in which the brain or viscera ~~are~~ are engorged with blood. In these cases the pulse is feeble & almost imperceptible, owing to the concentration of the blood in one part of the system. By venesection the blood-vessels would be entirely emptied & the patient would sink. — H. E. At first friction, & gentle internal stimulants should be resorted to, till reaction takes place, & the circulation becomes more regular, when blood-letting may be employed with advantage. — Such is Rush's sentiment. — Though I totally disbelieve in the idea of engorgement, yet that such a state of the system exists is no less valuable, and the practice is certainly correct. In what that state of system calling for such treatment consists, it is impossible to decide; but that it does exist there can be no doubt. —

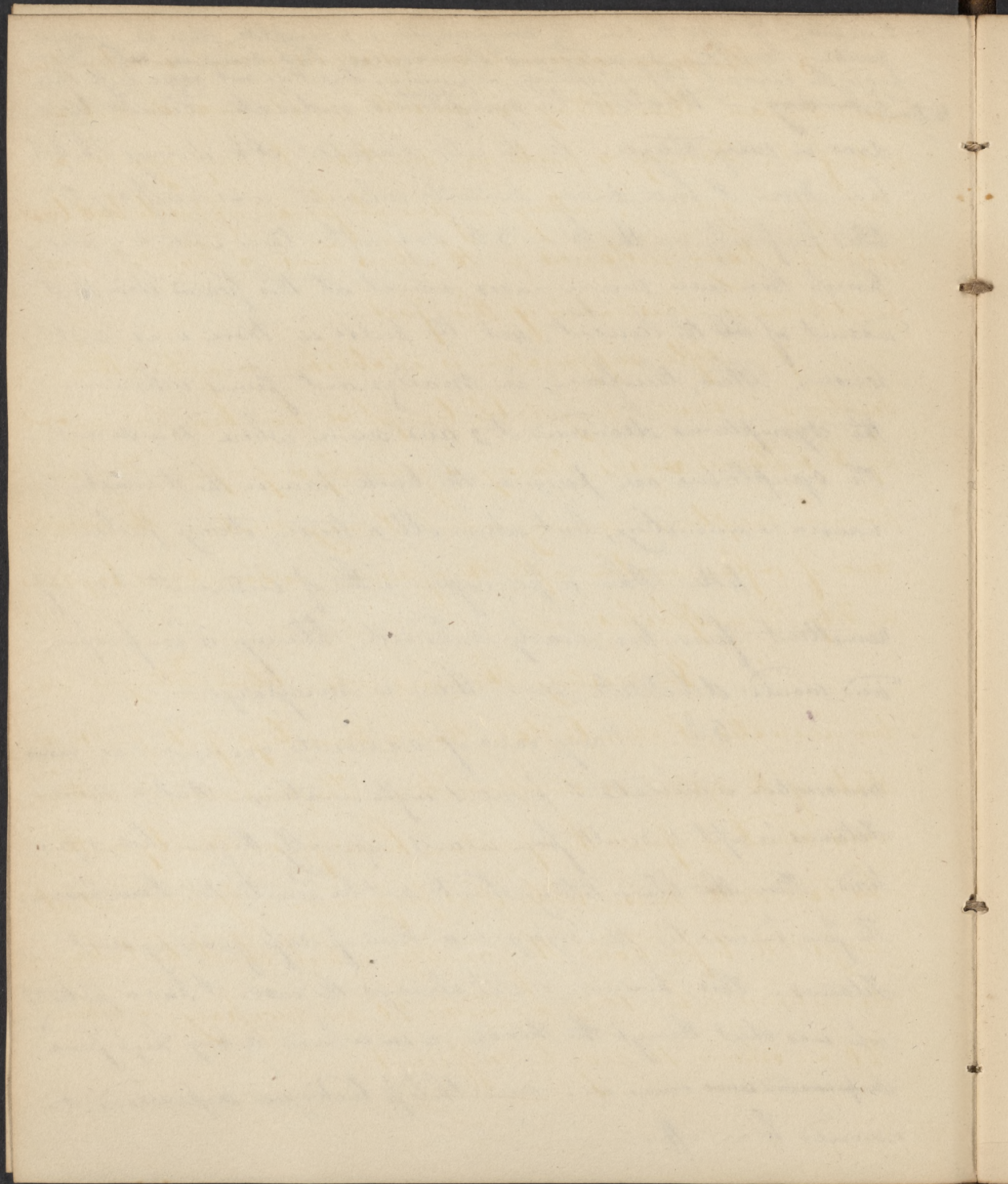
2nd. Blood-letting is improper in the conclusion or advanced stage of inflammatory fevers. The ancients fixed a time after which the lancet should never be used; but all such general rules must necessarily be uncertain. Dr. Rush declares that it is seldom proper beyond the 3rd. day in malignant fevers, if it has not been previously used. ~~But I have seen cases where the tension of the~~
Even tension of the pulse, he observes, ~~does not indicate~~

the remedy: for after this time the disorganization is so complete, that the case is ~~not~~ ~~and other symptoms demanded, the remedy after the~~ beyond the powers of bleeding, blistering, or purging. But I do not agree with this ~~5th day~~ ~~sentiment~~. Whatever the symptoms indicate should be

done in every stage. In the city Hospital, &c during the yellow Fever I had many patients whom it was necessary to bleed profusely on the 3 or 5th. day after their attack; and though there were many cases which at this period did not admit of ~~the~~ the lancet, yet the pulse in these was not tense. Bleed, therefore, in malignant fever whenever the symptoms demand it; and never where they do not. The symptoms are pain in the back, pain in the stomach, nausea & vomiting, but above all a tense, strong pulse. —

1st. When a paroxysm either of intermittent, or of remittent fever has nearly subsided, bleeding is improper, and would debilitate more than is necessary. —

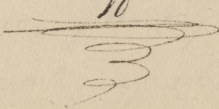
5th. Many cases of accidents occur, where ~~and~~ venarection is indicated to prevent inflammation. But in Summer Tetanus is apt to result from wounds, especially the gun-shot, & punctured. Here the blood-letting should not be resorted to. ~~The wound~~ The fever induced by the injury, is a kind of safe-guard against Tetanus. This, however, is not always the case. I had a patient who was shot through the thorax, & in whom a very high fever ~~supervened~~ ~~was~~ came on; — nevertheless lock-jaw supervened, & carried him off.



6. The same accidents and diseases, which in a temperate man demand blood-letting, in an intemperate man do not admit of it. Brandy, & *potus sc.* must here be employed in a state of the system, calling in general for an opposite ~~best~~ treatment. Many instances in the Alms House & Hospital might be adduced in illustration of this fact.

7. After suppuration is established, or after other secretions, as serum, coagulable lymph &c have been poured out by the inflamed vessels, bleeding is generally improper. There are, however, exceptions; among which I may mention the occurrence of inflammation after the effusion; - as sometimes happens in ~~the~~ Hydrocephalus. -

In reciting the cases when blood-letting is contra-indicated, I should state that a knowledge of the pulse & state of the system is indispensable. - The physician, in critical cases should perform the operation himself, or stand by with his hand on the pulse, while it is performed. - You cannot always tell beforehand the quantity which should be taken: - sometimes where 10 oz. are ordered, 20 are necessary; & where 20 are ordered, 10 may be sufficient.



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Phlegmasia. If in cases of general fever blood-letting is an important remedy, it is not less so in fever from local inflammation. In the Phlegmasia there is nothing so beneficial as the lancet. Physicians employ it with a variety of indications. After ~~the~~ any local cause which may exist, is removed, blood-letting is immediately to be resorted to. It does more ~~to~~ towards destroying the morbid, & restoring the healthy action than any other remedy. Its advantages are numerous. 1st. It relieves the severe pain which frequently accompanies local inflamⁿ. The patient often exclaims while the blood is flowing, that his head, his side, or whatever part is diseased, feels considerably better. 2nd. It abates the morbid heat of the affected part, & lessens the febrile symptoms. In all cases of severe local inflammation, the constitution is also irritated. This is relieved by blood-letting. 3rd. The disordered state of the functions of the part is diminished more rapidly by this, than by any other remedy. 4th. It in many cases, prevents when early employed, it prevents the termination of life in a part by gangrene, or in the system by death. 5th. It prevents the effusion of various fluids, as blood, serum, coagulable lymph, & pus. Thus it hinders the accession of hemorrhages, of dropsy in the brain, Hydrothorax, &c. it also hinders the formation of abscesses in the liver, of fistulae

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in ano, & and many other troublesome consequences. ~~Now~~ By preventing the effusion of coagulable lymph, it preserves the part from scirrus tumours, and if the inflammation be in the eye, it does away the danger of opacity of the cornea. — 6th. Venesection prepares the system for the operation of other remedies. In many cases purging, sweating, &c. cannot be induced, until the system be brought down to the proper point by bleeding; that is until its excitability is awakened. — Thus Venesection may become a cathartic, an emetic, diaphoretic, emmenagogue &c.

7th. By this operation we remove local congestions more certainly than by any one remedy, or by all of them together without it.

L. II. In ~~Opst~~ I will now speak of the advantages of blood letting in particular cases of the Phlegmasia.

In Ophthalmia general & local bleeding are the principal remedy. It is necessary to empty the vessels by all kinds of evacuation, and venesection should be resorted to again & again. In the commencement of the disease it is particularly indicated. — Diseases, like this, should be seen by the fore look; for they are told behind. This is particularly necessary in those cases when we expect to cure by venesection. After general bleeding has been liberally employed, we should

resort to local. This may be effected by cupping, leeches, or scarifications. -

In Phrenitis whether resulting from an accident, or idiopathic, blood should be drawn freely & profusely. It has been advised, ~~for this purpose~~, to take it from ~~the~~ vessels near the part; and, for this purpose, that the temporal artery, or jugular vein should be opened. But this is entirely unnecessary. Blood taken from the arm empties the vessels of the head, as soon as if it ~~is~~ were drawn from the neighbouring parts. All that is necessary is to carry it to a sufficient extent. Dr. Cullen approves of the remedy, and Dr. Rush carried it still further.

In Mania Cullen rather allows than recommends blood-letting. Dr. Rush uses it in every stage. In the opinion of the latter physician, it is a disease of ^{too great} the arterial action, and consequently to be treated by venesection. As a proof of the advantage of the remedy, he adduced the instances of persons, who, upon cutting their throats, have regained their senses. - A second proof is that by irritating ~~them~~ in drawing blood he has effected cures. - The bleedings, however, should be copious; 20oz. or more being taken at a time. Dr. Rush

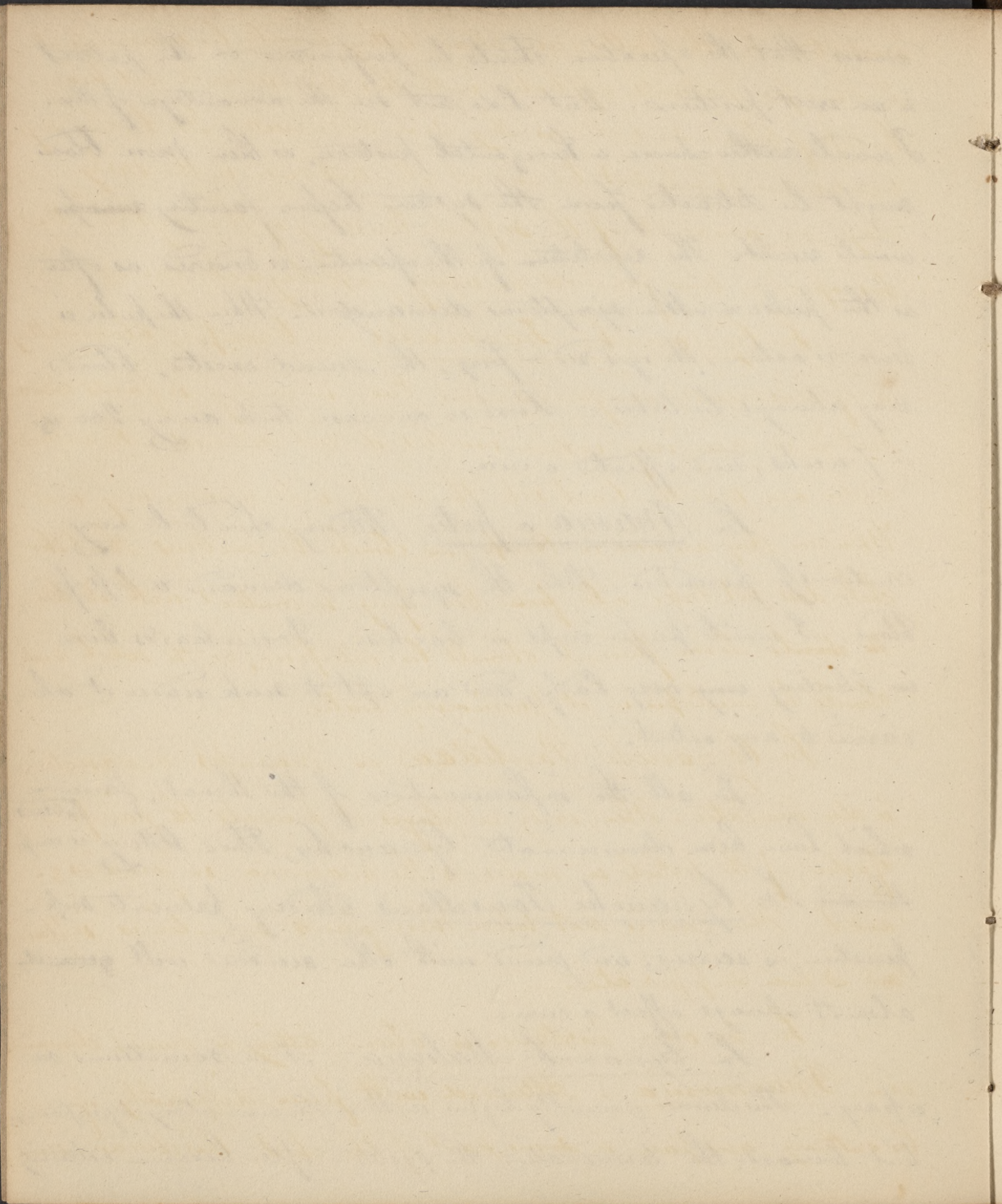


advises that the operation should be performed on the patient in an erect position. But I do not see the advantage of this. I would rather choose a horizontal posture, as then more blood might be detracted from the system before fainting ~~might~~ would result. The repetition of the operation is ordered as often as the pulse & other symptoms demand it. When the pulse is loose & action, the eyes red & fiery, the mind excited, blood may always be taken. Rust in one case took away 200 oz. in 7 weeks, and effected a cure.

In Mania a potu, bleeding should be very cautiously prescribed. When the symptoms demand a loss of blood, I would prefer cups or leeches. Drunkards bear ~~the~~ bleeding very badly, and are apt to sink under it when carried to any extent.

In all the inflammations of the throat, fauces ^{Tonsils} ~~are~~ which have been denominated Cynanche, blood-letting is ~~imp-~~ ^{the} ~~ap~~ In Cynanche Tonsillaris bleeding prevents sup-
puration, & scirrus; and joined with other remedies will ~~generally~~ almost always effect a cure.

In Cynanche Maligna, it is sometimes necessary. This disease generally begins with inflammatory symptoms, but towards the termination the system often becomes extremely



prostrated. In the latter case blood-letting would be inauspicious. In Europe, patients afflicted with this disease will not bear the loss of blood so well as they do in America. Dr. Cullen says venesection should not be used at all, not even in the early stage, on account of the septic tendency of the system. But his opinion was founded on wrong pathological views.

In Cynanche Trachealis, or Croup, blood-letting is of immense importance. Even in young infants venesection is necessary when emetics do not succeed. In infants under one month, leeches to the neck will answer very well. Whenever they are used in Croup, we should be cautious that the child does not take cold from their lying in contact with its skin. ~~It should~~ Some flannel should be interposed, or the whole neck should be enveloped in it previously heated.

In Cynanche Parotidea or Mumps venesection is also indicated. When early employed it prevents the painful affection of the testicle in males, & the mamma in females; ~~and~~ When care is not taken these glands sometimes inflame and even suppurate.

In no one instance is blood-letting so much demanded as in Pneumonia. Attended with fever, difficulty of breathing, and pain in some part of the chest, this disease in-

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periously calls for the lancet. Whether the pleura or the substance of the lungs is the seat of the inflamⁿ: it is impossible to distinguish. Happily this is of no great consequence, as the remedies are in both cases are the same. There is not in the writings of Physicians, a more admirable apology for blood-letting, than that of Dr. Cullen's when speaking of Pleurisy. I shall quote the whole of what he says on the subject. - (See Dr. Cullen)

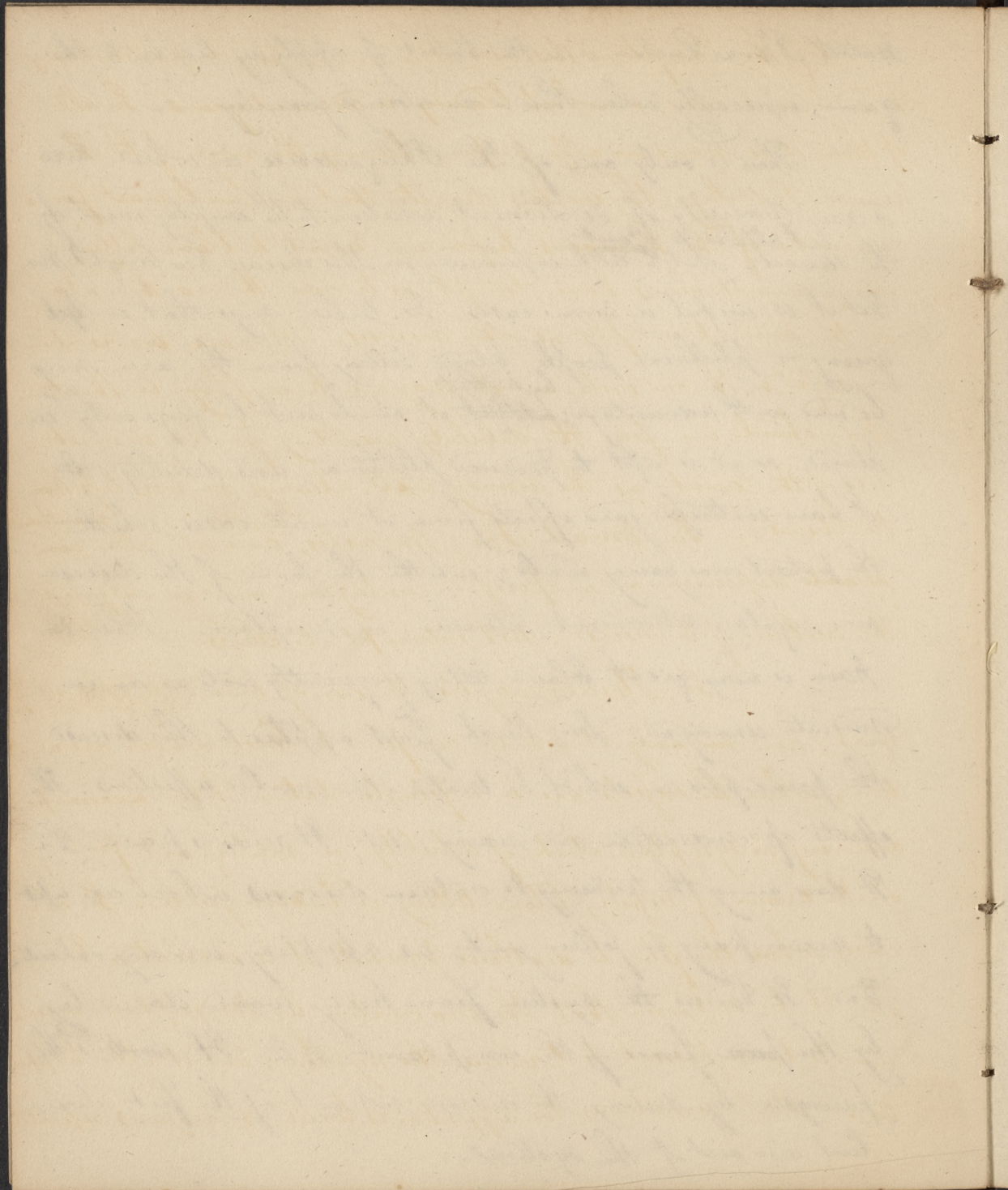
[L. 12.] In various other inflammatory diseases of the chest, not excepting Pulmonary Consumption, even when the debility is very great, it is necessary to employ the lancet. When there is much oppression in breathing, blood-letting affords great relief. The blood should be ^{drawn} taken in small quantities at a time, and from the arm. But if the muscular debility be very great, it may be taken from the breast or neighbouring parts by cupping. -

In Hepatitis very copious & frequent bleedings are necessary; and the same may be said of every other case of the Phlegmasia. The object in all is to diminish the increased action of the heart & arteries; and at the head of remedies for this purpose, is venesection. Dr. Keel employed it in Oedentalgia or tooth ache. Mr. Hudson, who is the most accomplished

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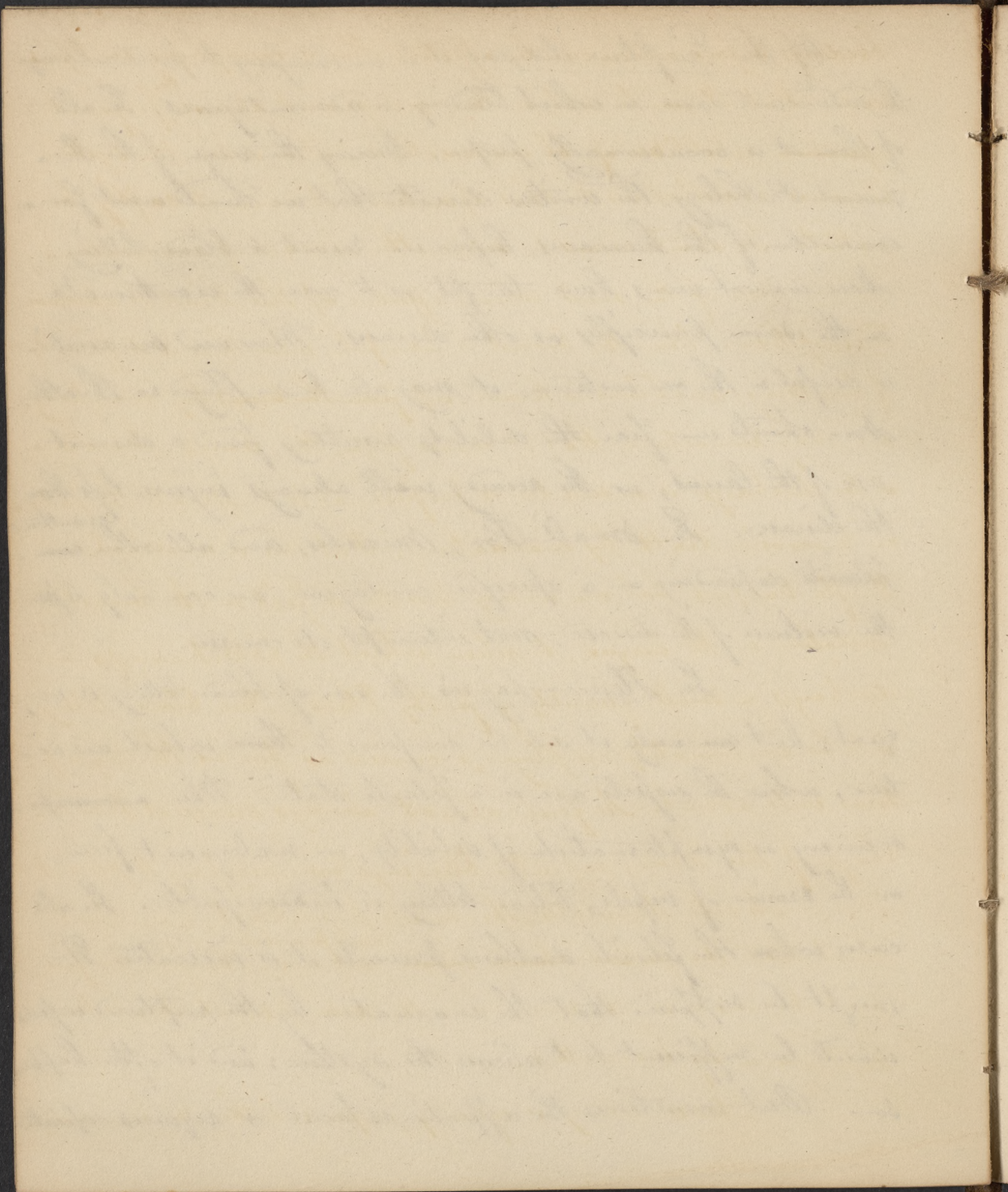
dentist I ever knew, is in the habit of applying leeches to the gum, especially when there is an abscess forming. —

There is only one of the Phlegmasiae, in which there is any diversity of sentiment relative to the employment of the lancet. I allude to ~~Gout~~ ^{Gout}. Not a little experience in this disease has taught me, that it is useful in some cases. Dr. Cullen says that in ~~the~~ young & plethoric people, blood-letting from the arm may be used with advantage; ^{but that} ~~but~~ it should not be frequently employed, as it is apt to produce plethora, and debility. ~~Dr.~~ I have witnessed good effects from it in all cases, whether the patient was young or old; whether the form of the disease was regular, retrocedent, atonic, or misplaced. When the pain is very great blood-letting frequently acts as an immediate anodyne. Dr. Rush first applied to this disease the principles on which he treated other morbid affections. The effects of venesection are many. 1st. It relieves pain. 2^d. It does away the tendency to certain diseases which are apt to accompany or follow gout, as apoplexy, urinary calculus &c. 3^d. It hinders the system from being worn down by the ~~force~~ force of the complaint. 4th. It shortens the paroxysm by driving the disease not out of the feet alone, but also out of the system.



Of the Eruptive diseases it is unnecessary to particularize the individual cases, in which bleeding is advantageous. In all of them it is occasionally proper. During the reign of the Humoral Pathology, the writers directed that we should wait for a concoction of the humours, before we resort to blood-letting. More correct views have taught us to cure the exanthemata on the same principles as other diseases. Wherever venesection is useful in the one instance, it may also be employ'd in the other. Nor should we fear the debility resulting from a discreet use of the lancet, as the remedy will always injure less than the disease. In Small-Pox, Measles, and all other ^{exanthemata} ~~com-~~ plants depending on a specific contagion, we can only lessen the violence of the disease, not interrupt its course.

In Hæmorrhagies the use of blood-letting is very great; but ~~we~~ only it is to be confin'd to those which are active, when the vessels are in a febrile state. When ~~accompa-~~ occurring as symptomaticks of debility, or malignant fever, or the erosion of vessels, blood-letting is inadmissible. In all cases, where the febrile diathesis prevails it is indicated. It might be supposed that the evacuation by the ruptured vessels would be sufficient to relieve the system; and it often happens so. But sometimes the affection is local & requires repeated

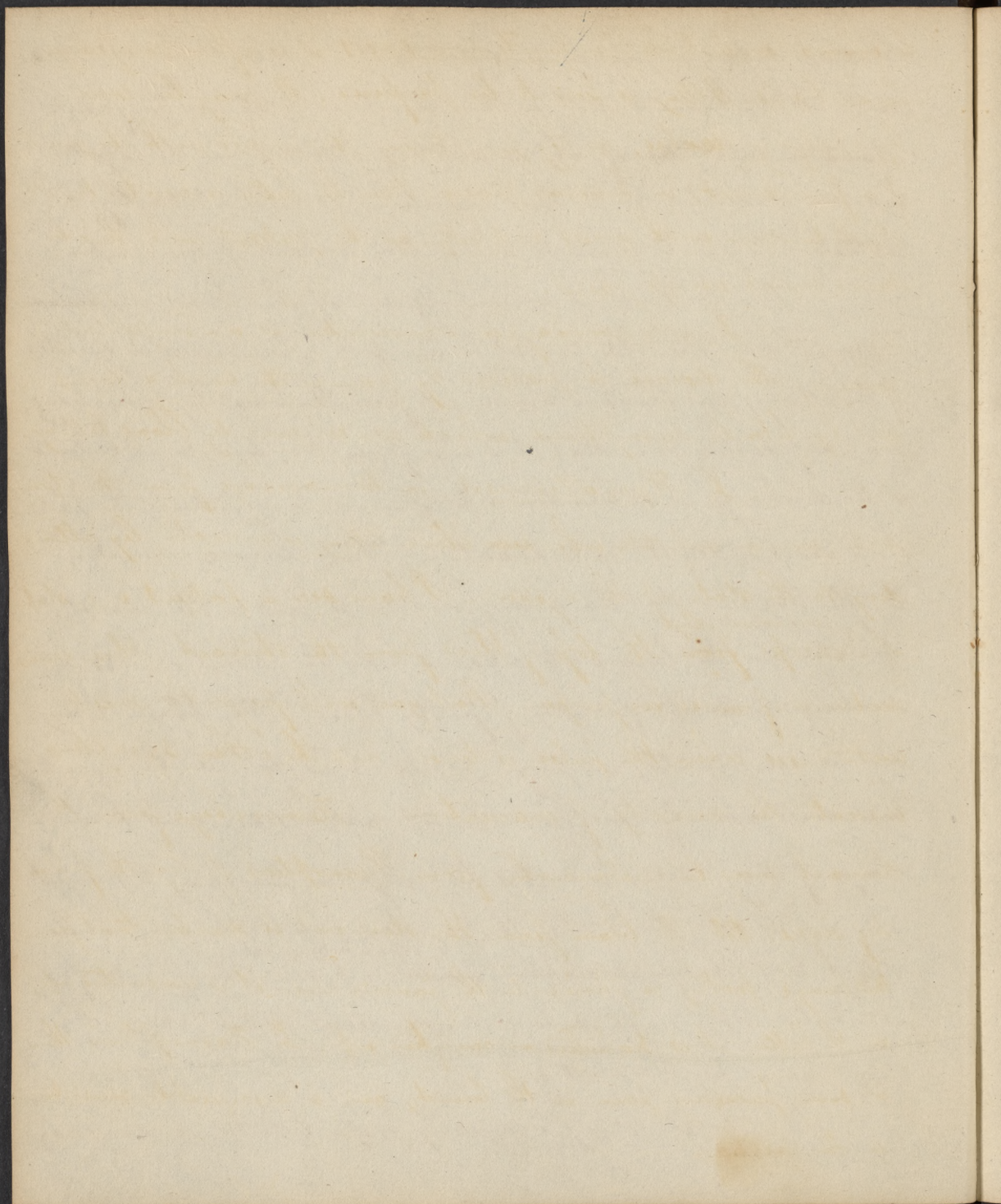


bleedings before a cure can be effected. This is exemplified in Epistaxis. But I would not, in this complaint, advise ^{the} frequent ~~operation~~ repetition of ~~the~~ venesection. For when the system becomes accustomed to this operation, it cannot safely be withheld. We should resort to some other means of evacuation.

One of the most serious affections of this kind is spontaneous Hemoptoe. When the breast is painful, when there is difficulty of breathing, and blood is thrown up ~~from the lungs~~ by coughing, we may conjecture that it comes from the lungs. Sometimes the discharge is so sudden & profuse, as to suffocate the patient, or to occasion death by evacuation. But this is unusual.

It often happens that an uneasy sensation is felt in the breast, irritation in the larynx, to relieve which the patient coughs, & discharges a small quantity of frothy blood. This blood-letting is to be immediately employed, & carried as far as the symptoms will admit. As fever almost always succeeds hemorrhage of this kind, repeated bleedings are necessary to prevent it. — As cold stimulates the vessels to contract, you should direct that ~~the patient should inhale~~ ^{should be inhale} cool air. Therefore no fire should be made in the room, and the ~~sick~~ patient should be kept warm by two-clothes.

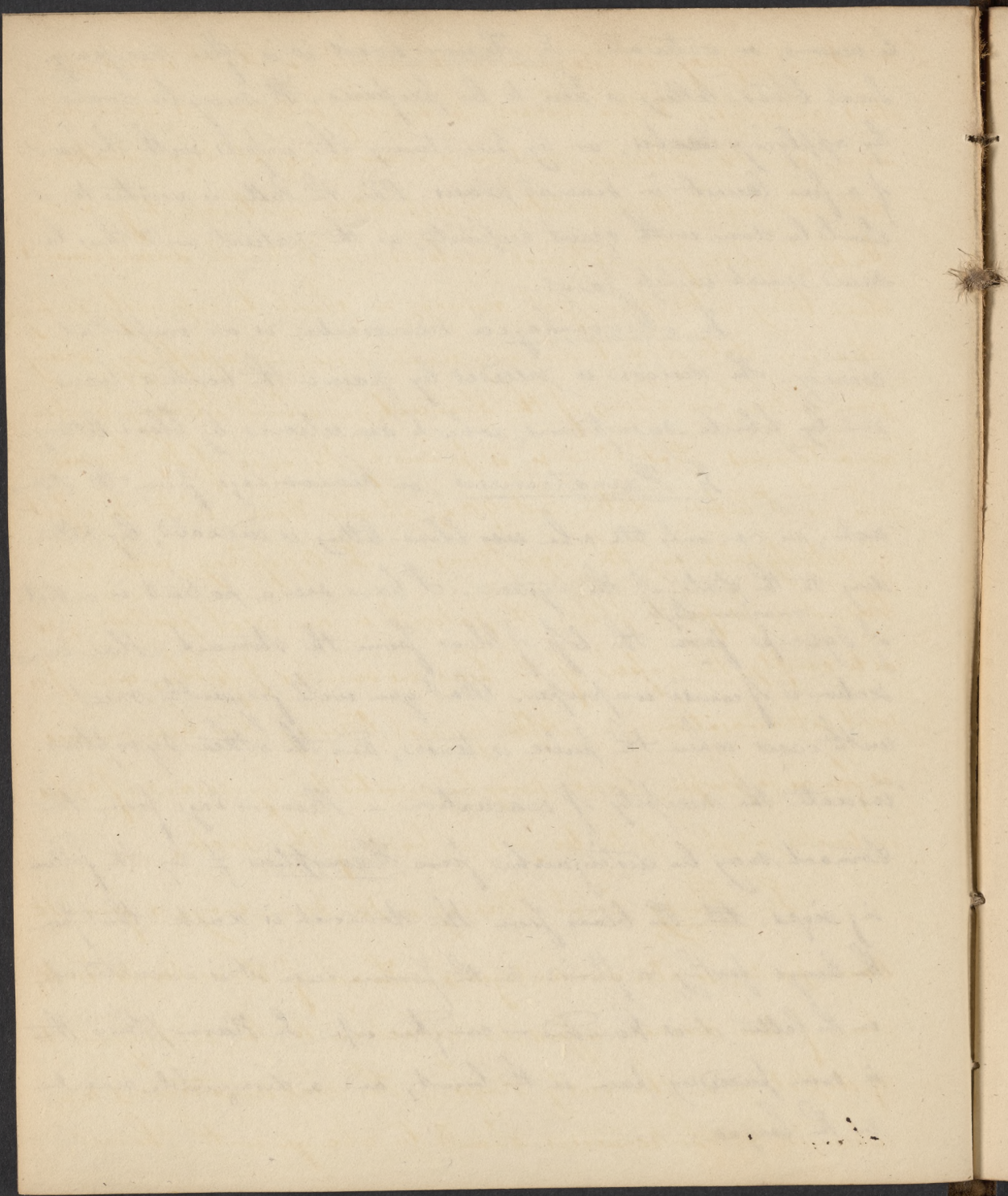
Blood-letting is equally proper whether the hemorrhage



be venous, or arterial. In Hemorrhoids it is often necessary. Local blood-letting is here to be preferred. It may be done by applying leeches, or by puncturing the vessels with the point of a fine lancet in several places. When the latter is resorted to, it should be done with great rapidity, as the patient will thus be saved much useless pain.

In Menorrhagia venesection is an important remedy. The disease is preceded by pain in the back & loins, and by febrile symptoms, which are relieved by blood-letting.

In Hæmatemesis, or hemorrhage from the stomach, we can only tell when ~~use~~ blood-letting is indicated, by attending to the state of the system. I have seen a patient in a state of ^{occasional} ~~symp~~ ^{of} syncope ~~from~~ the loss of blood from the stomach. Here venesection is of course improper. But you will frequently meet with cases when the pulse is tense, and the other symptoms indicate the necessity of evacuation. — Hemorrhage from the stomach may be distinguished from Hæmoptoeis by the following signs. ~~1st~~. The blood from the stomach is dark — that from the lungs frothy & florid: — in the former case it is vomited up, in the latter it is hawked — coughed up. In Hæmoptoeis there is some preceding pain in the breast, and a disagreeable sensation in the larynx. —



§ 13 In Apoplexy venesection is the remedy without which all others are useless. In this disease the whole of internal & external senses, and the voluntary motions are ~~for~~ in a great degree ~~destitute~~, abolished, while the circulation & respiration continues to go on. Whether it arise from external violence, or internal derangement blood-letting is the principal remedy, & should be copiously employed. There is a state of the brain, very much resembling apoplexy, arising from certain conditions of the stomach; in which bleeding is also advantageous. That it is so is proved by the case of Dr. Seaver, who, as I before stated, lost 90 oz. at one time, with the effect of entirely relieving the symptoms. In Apoplexy, when one bleeds, it is proper to place the patient in an erect position; so as to empty the vessels of the head as soon as possible, and prevent extravasations. - After general bleeding has been carried as far as is proper, local may be resorted to, by means of cups or leeches, applied to the temples or back of the neck. —

In Palsy local bleeding in the same way, & from the same parts, is also advantageous. The use of stimulants in the close of this disease, affords no objection to the employment of depletion in the early stages. - The circumstances are change, & the remedies should be changed with them.

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In Spasmodic affections blood-letting is often a valuable remedy. In some instances, however, it is decidedly prejudicial. It should not be used in Tetanus: - in this disorder, as far as I have seen, it has always been of disadvantage. At least I am so persuaded that venesection, & debility invites tetanus, that I use the remedy very sparingly in wounds occurring in hot weather. In cases of Convulsions, bleeding is very useful. I have seen a female, whom 5 men could hardly hold in bed, suddenly relieved by venesection -

The effects of bleeding are in nothing more obvious than in the reduction of obstinate luerations. When it is employed to obtain its relaxing effects, the patient should be in an erect posture, and a large orifice should be made.

In Epilepsy, blood-letting, in certain cases is the best remedy that can be employed; - there are such as ~~has~~ are accompanied with a plethoric state of the system. - But the causes of this disease are so various, and the state of the symptoms so various, that I would not ~~establish~~ recommend this remedy as a general practice. On the subject of ~~low~~ diet, I mentioned that a rigid adherence to a very low regimen was sometimes useful in Epilepsy. The

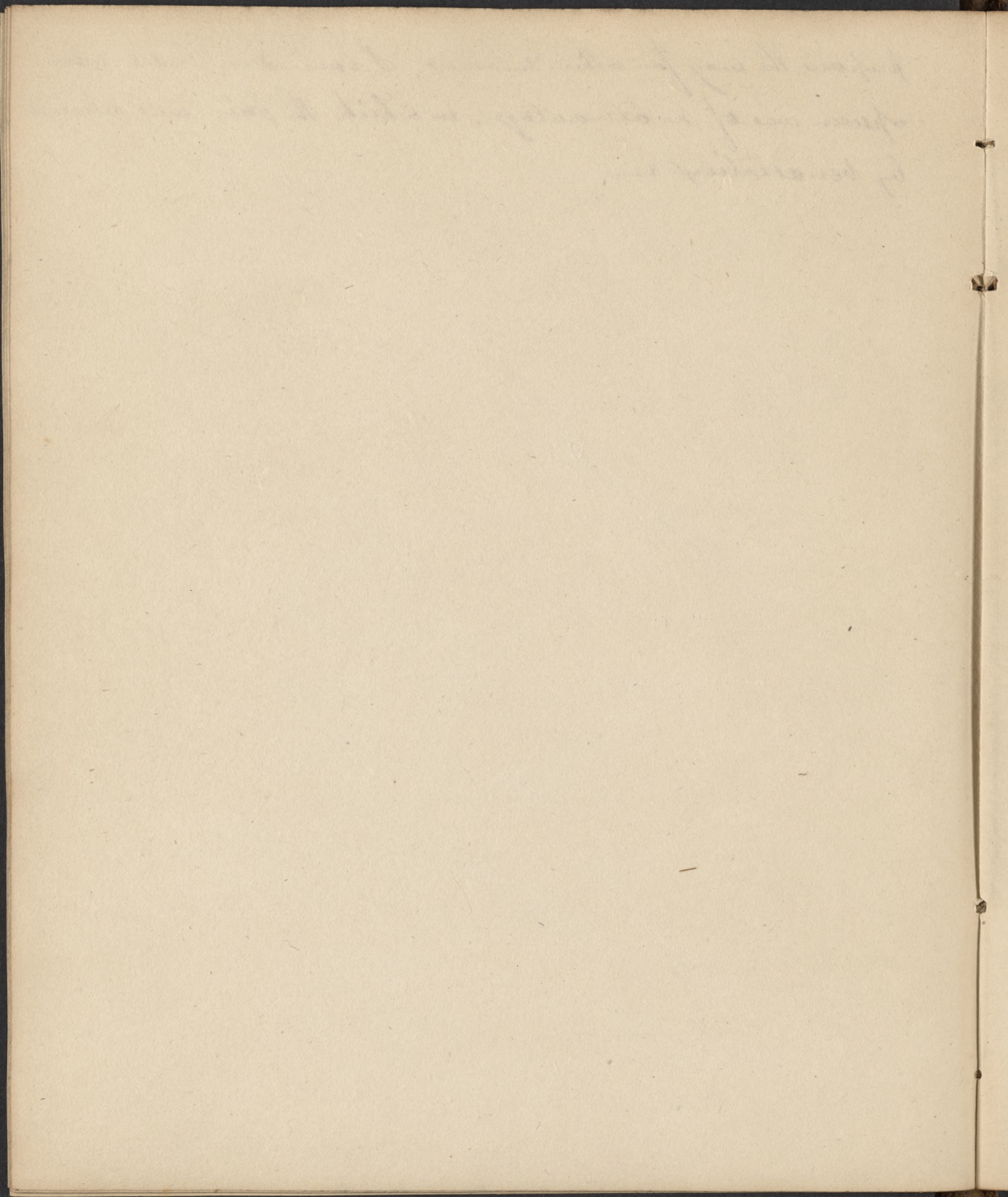
professor of practice treated a case in this way with the greatest success. Induced by ~~this~~ ^{the} termination in that instance, I restricted a patient of my own to an exceedingly low diet; the consequence was that the fits were doubled in number. Having continued this plan for 3 months, I changed it, and recommended animal food. The fits were put off for a considerable time, and the patient is much better. So various is the treatment which is necessary in this disease. —

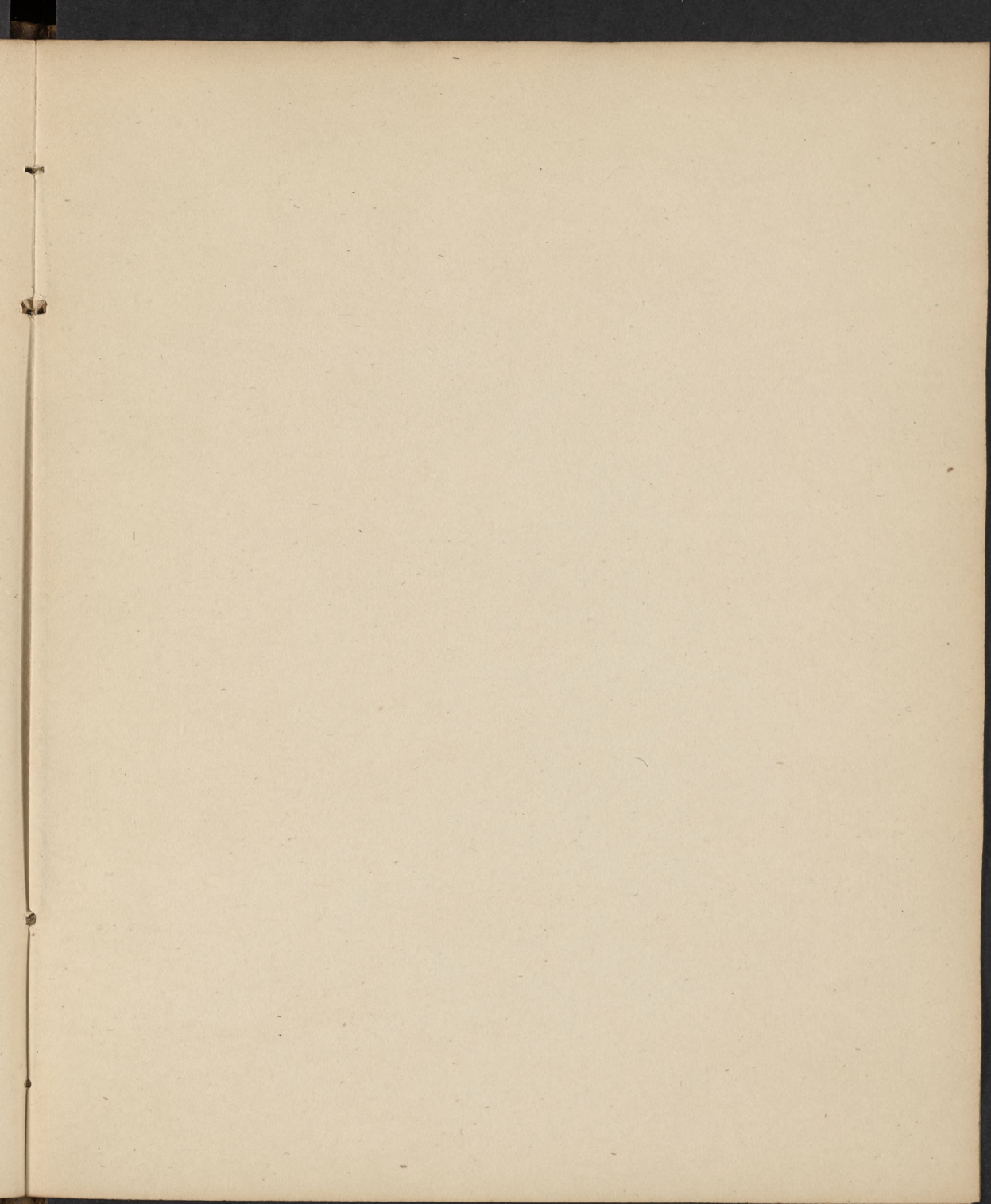
In Chorea St. Fiti, Rush & Sydenham recommended bleeding, especially when the disease is attended with a plethoric habit. Dr. Cullen improperly ranks many other diseases under the head of spasmodic affections; — as Whooping cough, asthma, Dyspnoea, Palpitations &c. — In all these blood-letting is occasionally useful. Two rules are to be regarded in its employment. 1st. when the difficulty of respiration is urgent it should always be used; 2^d. — when the pulse, & inflammatory state of the system, indicate its propriety. —

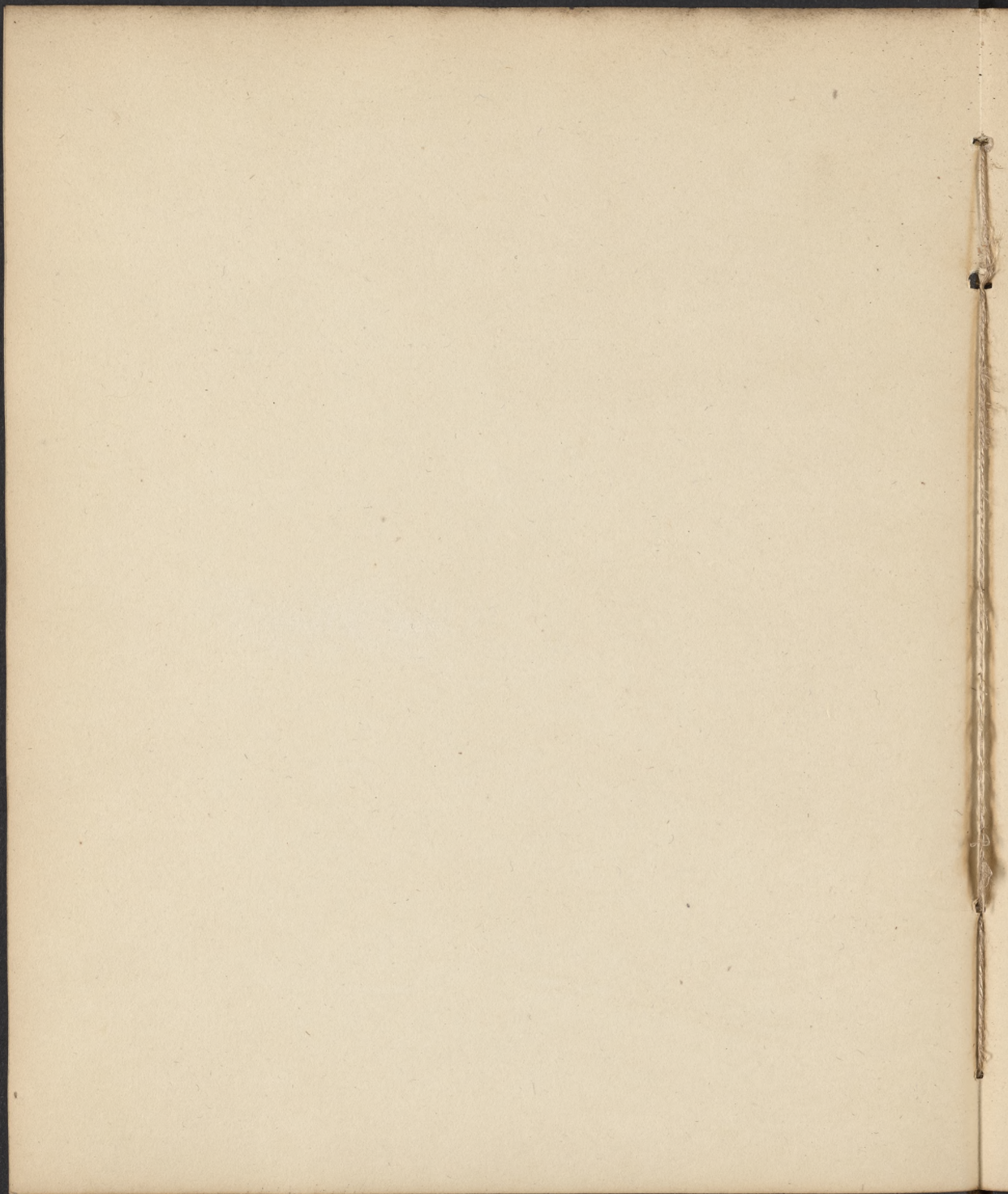
In St. Colic bleeding is essential. It relieves the spasm, prevents the occurrence of inflammation, and

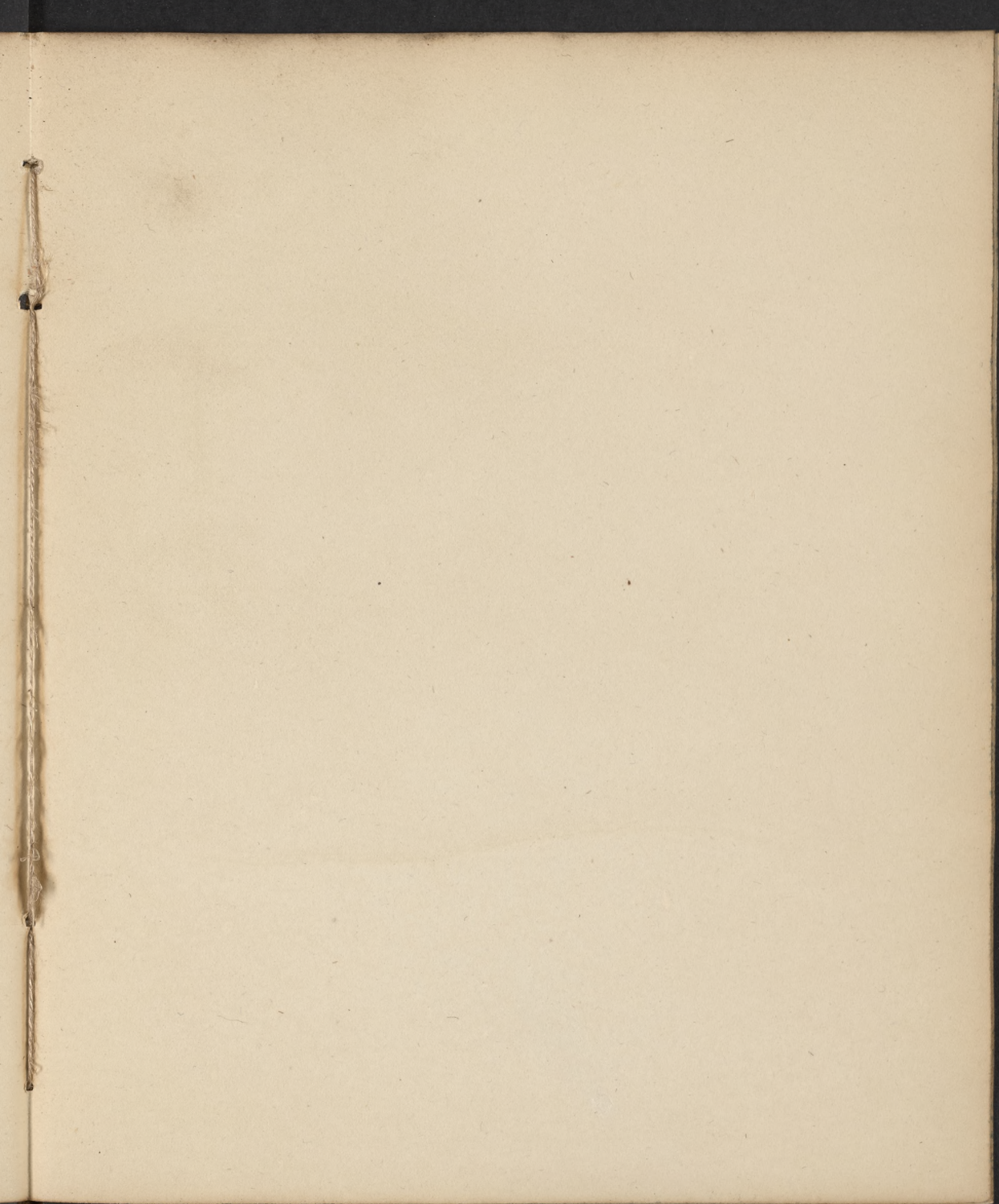
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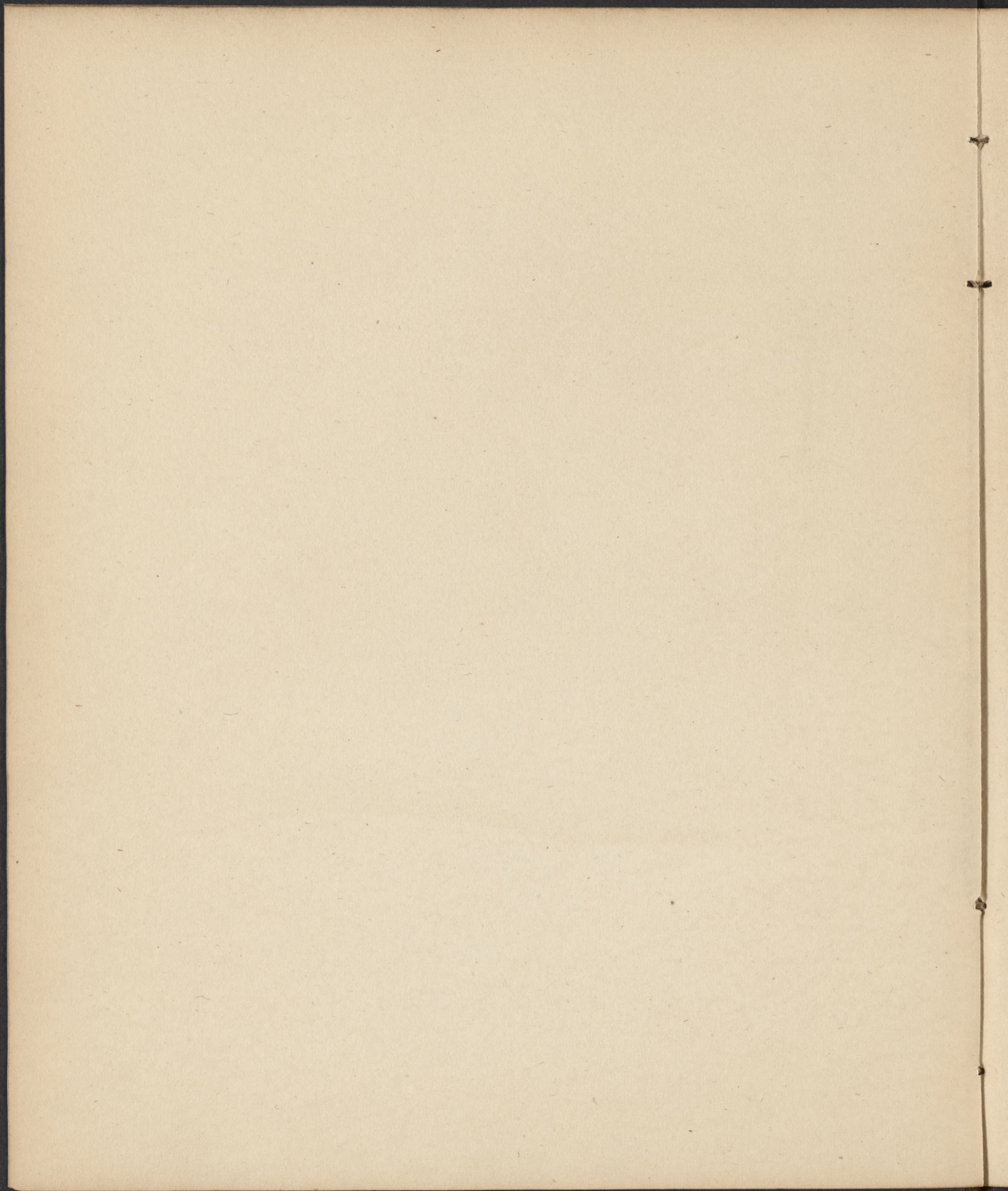
prepares the way for other remedies. I have seen cases where
opium was of no advantage, in which the pain was relieved
by venesection. —

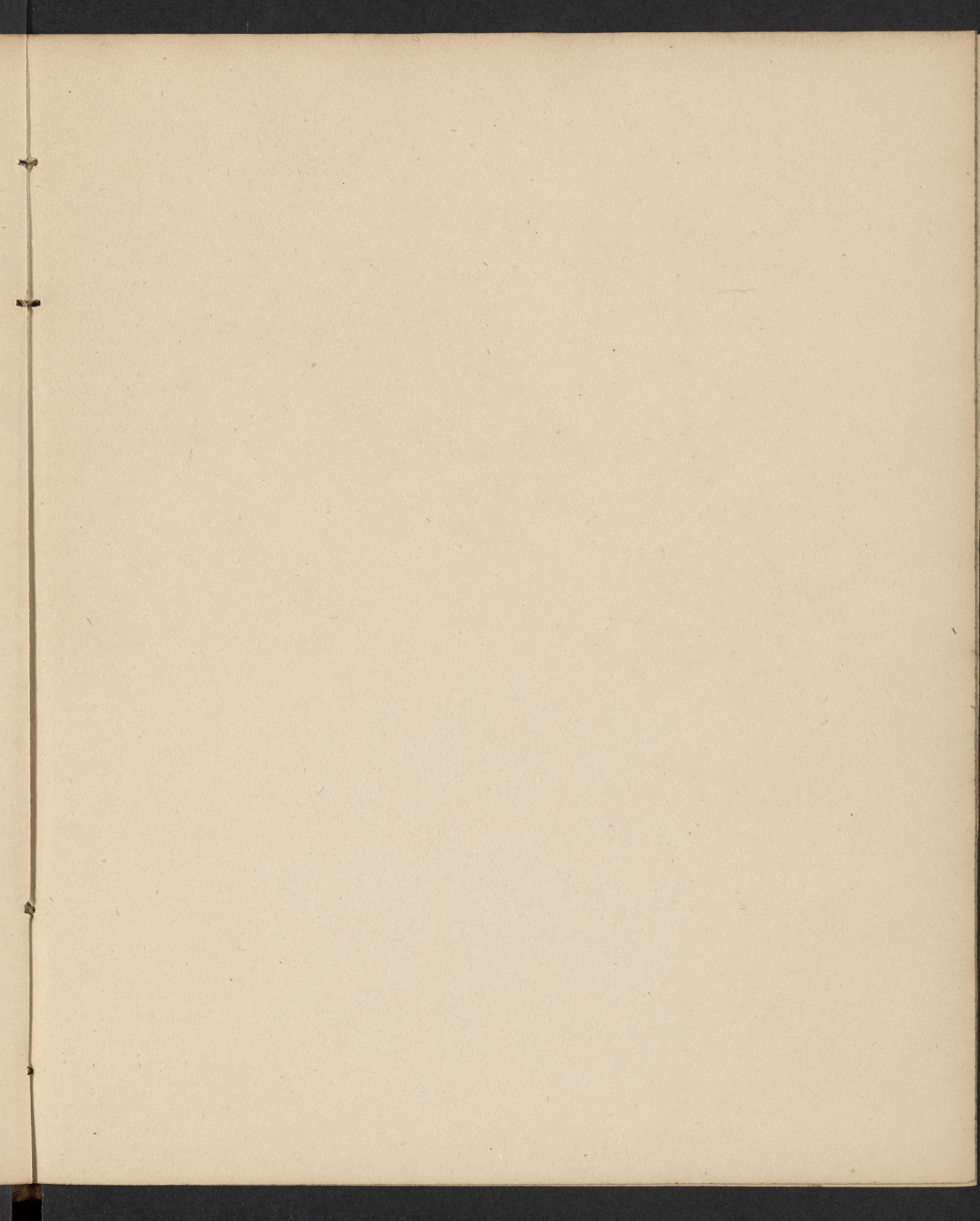


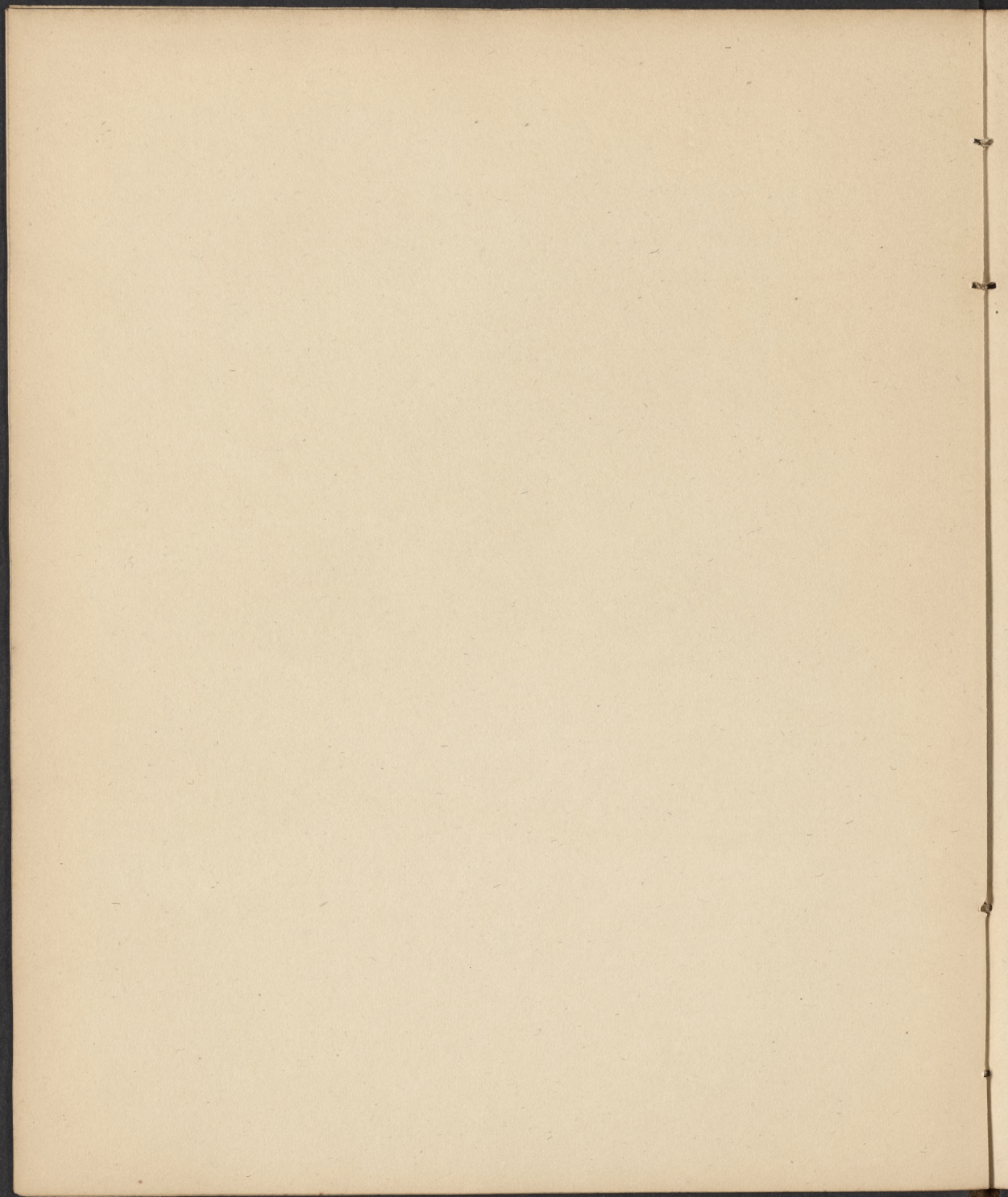


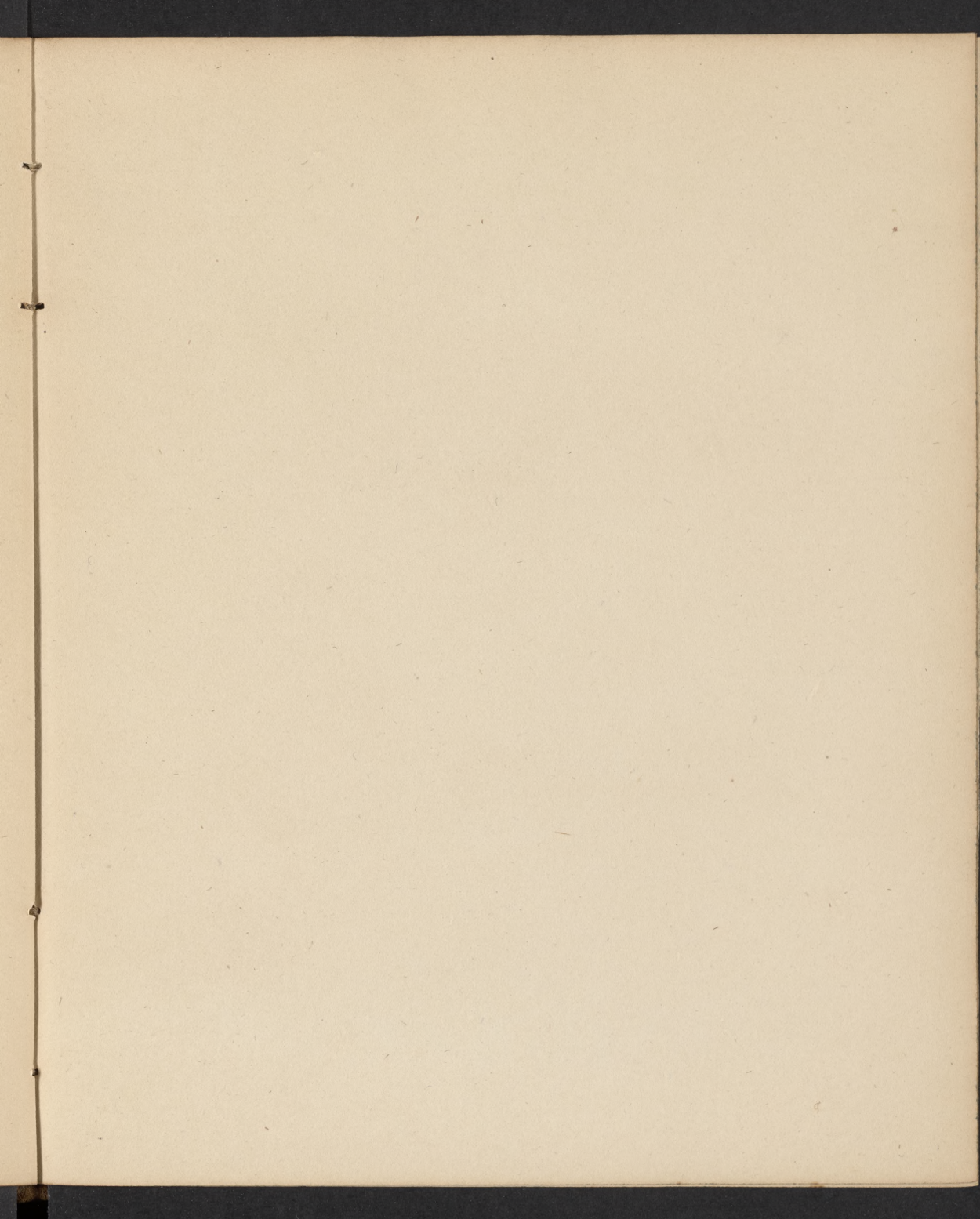


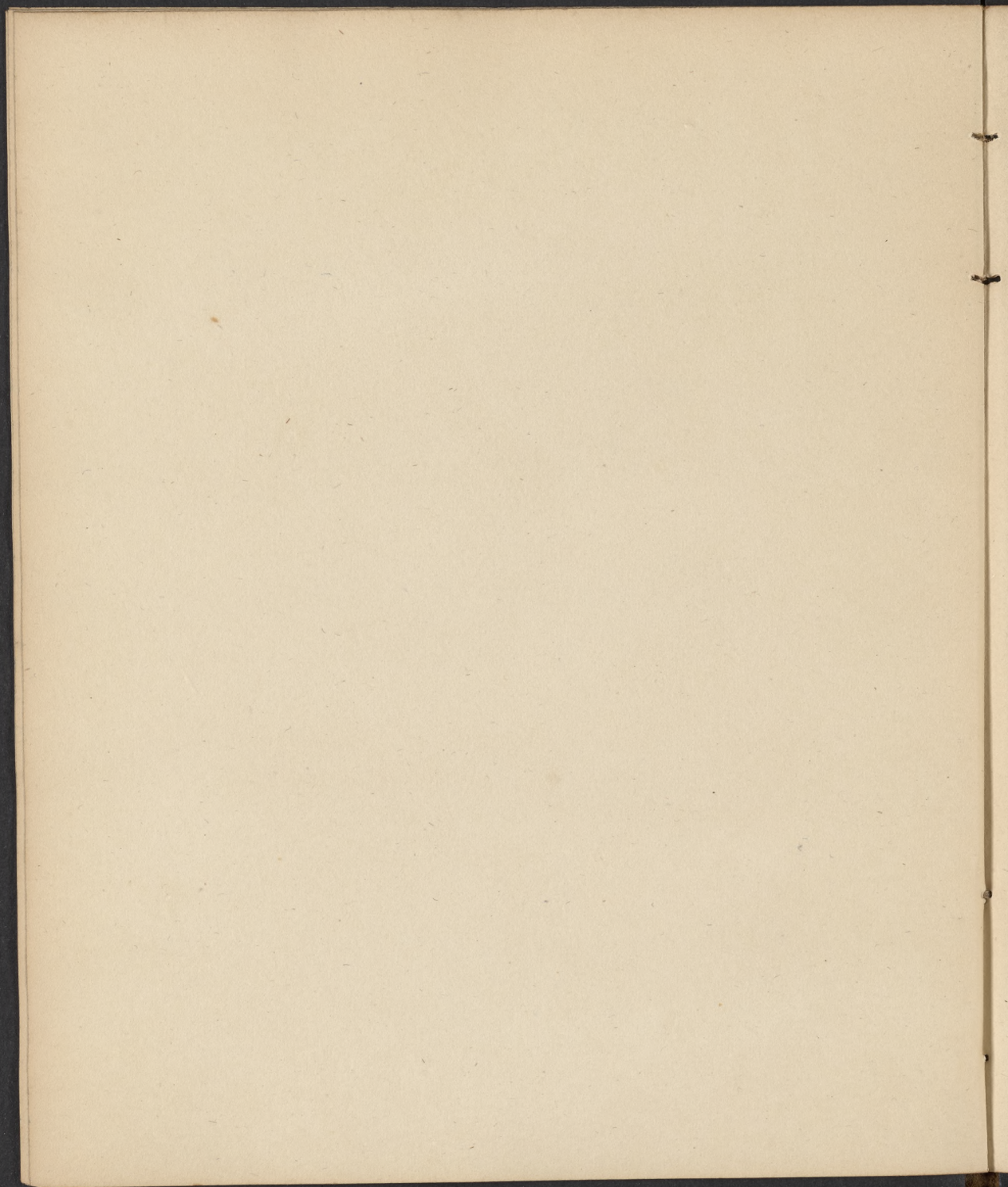


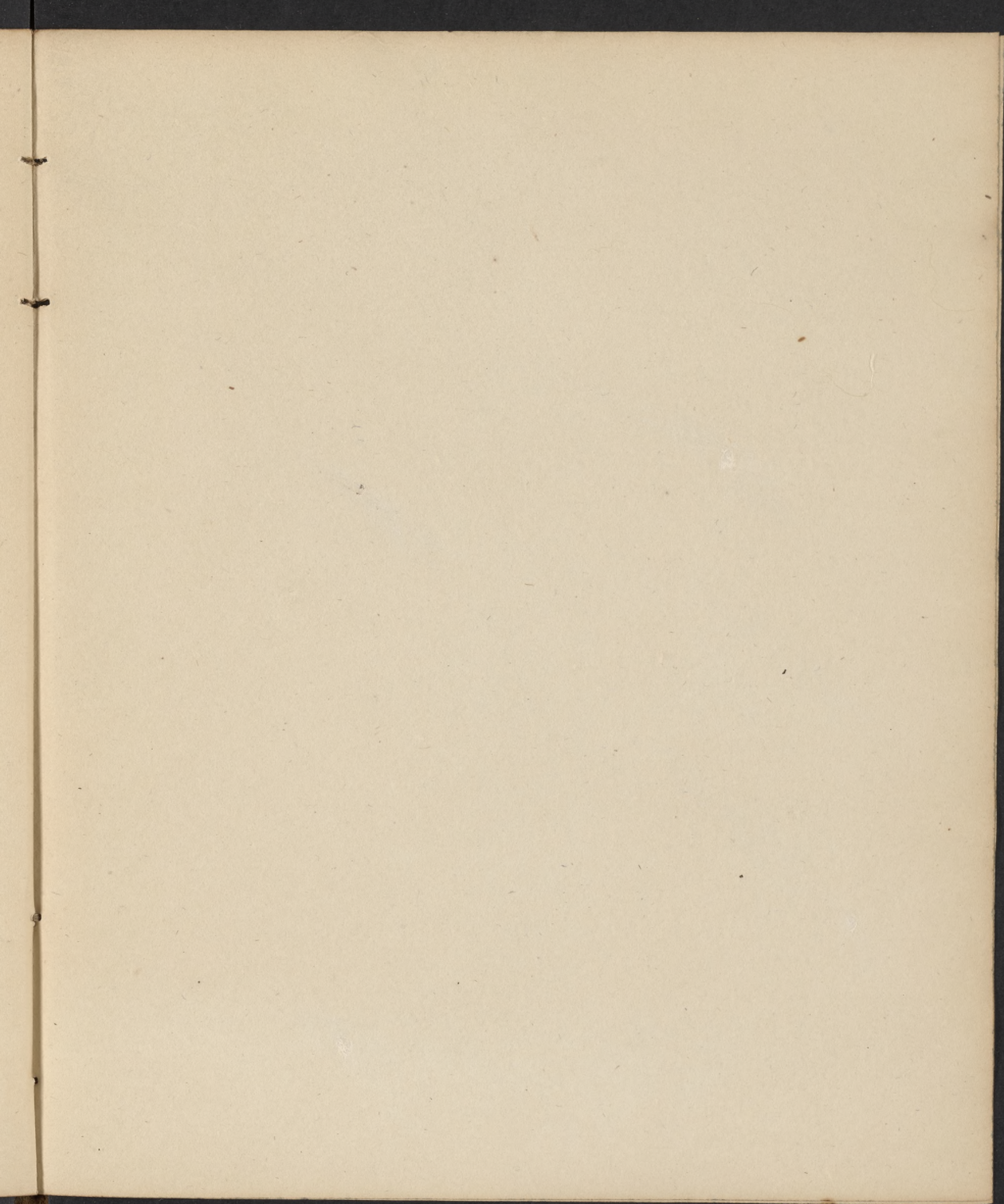




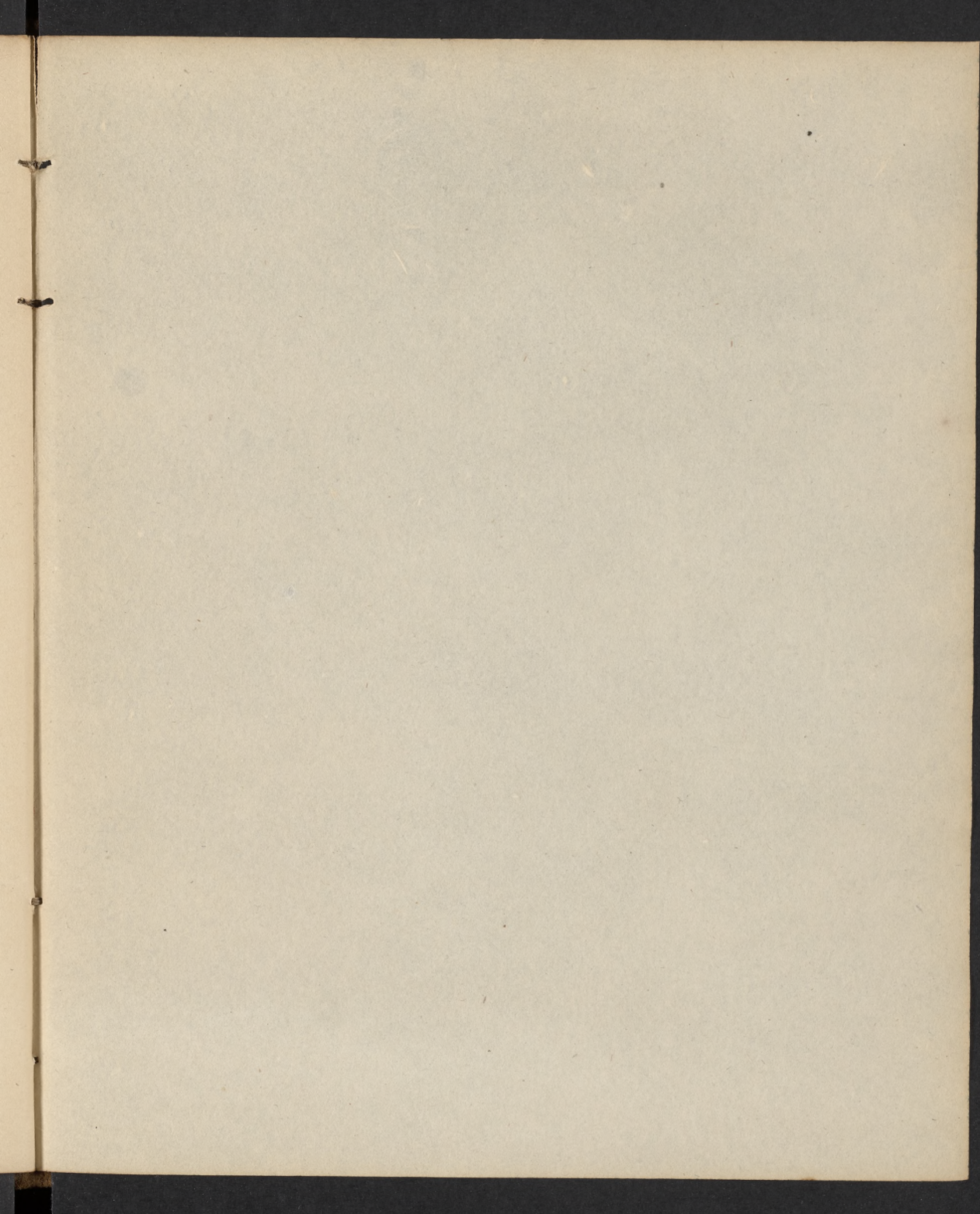


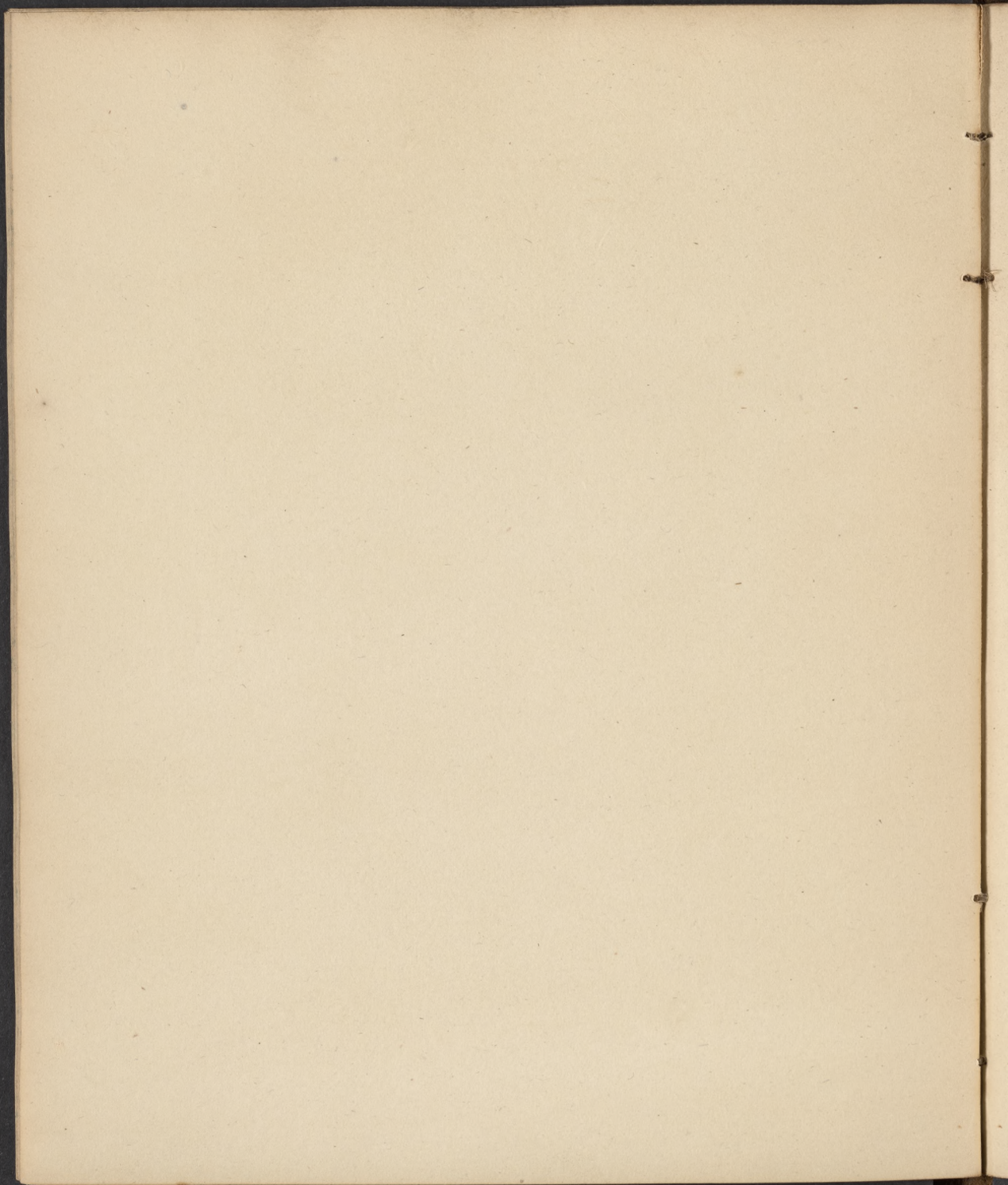


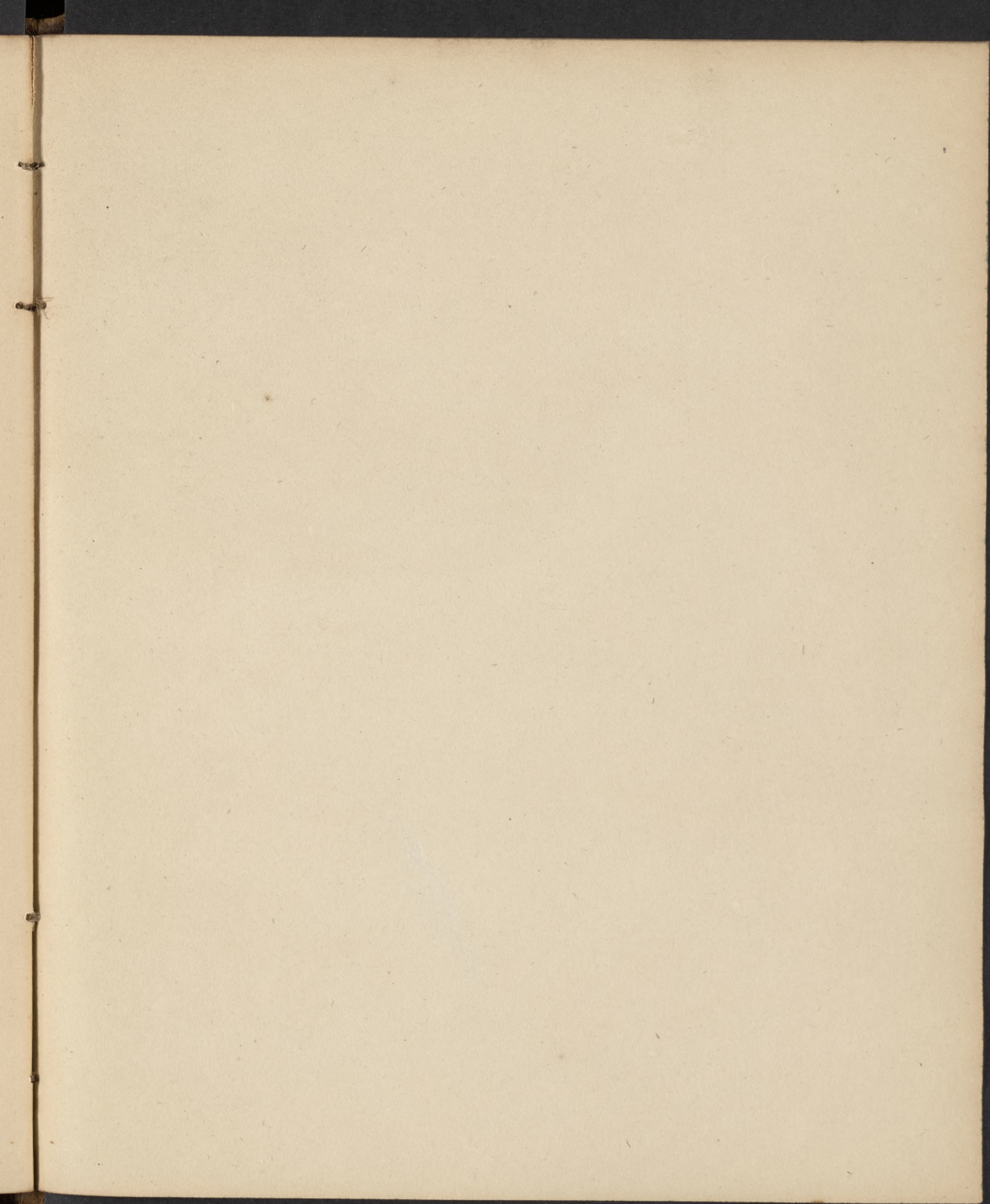


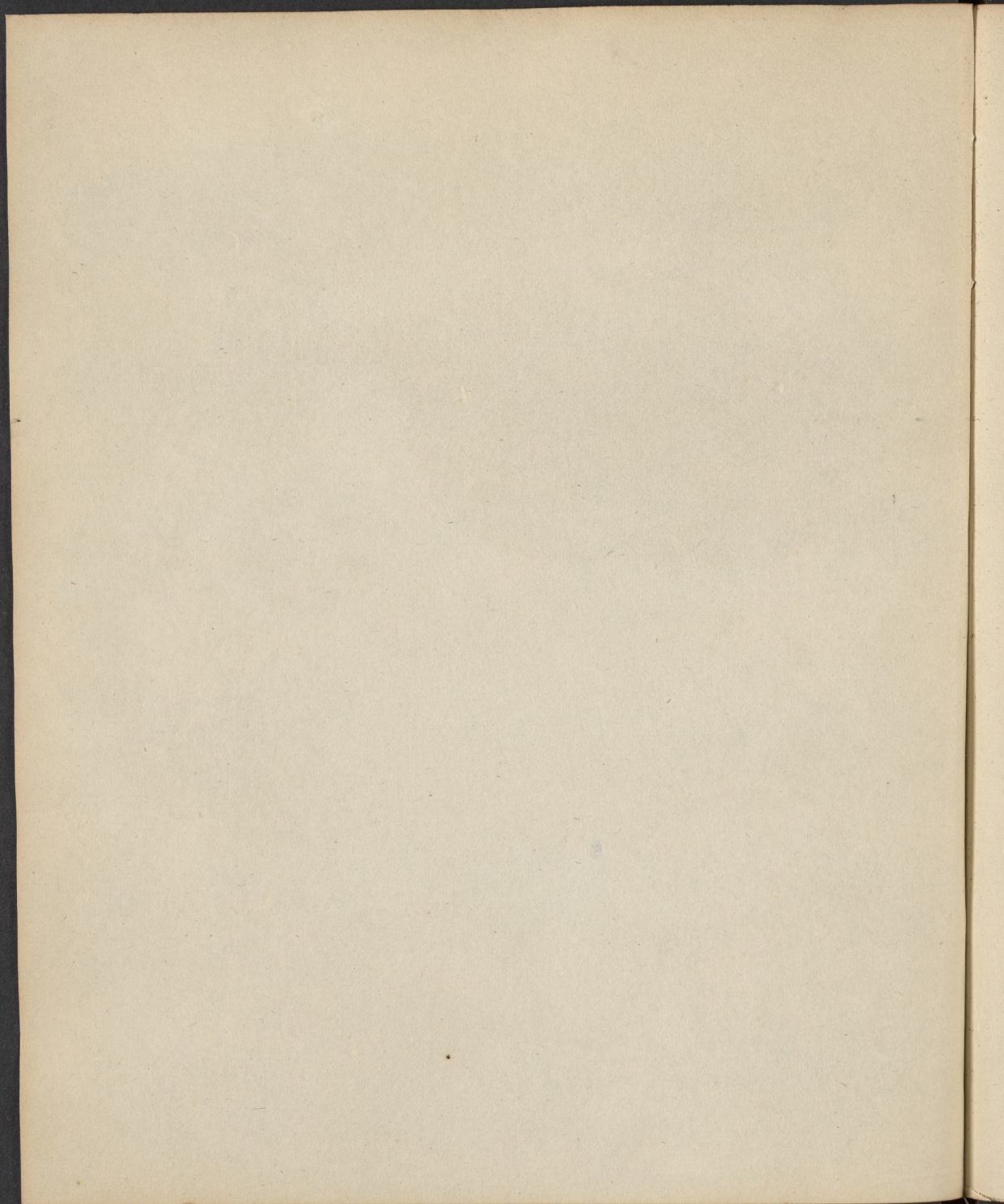


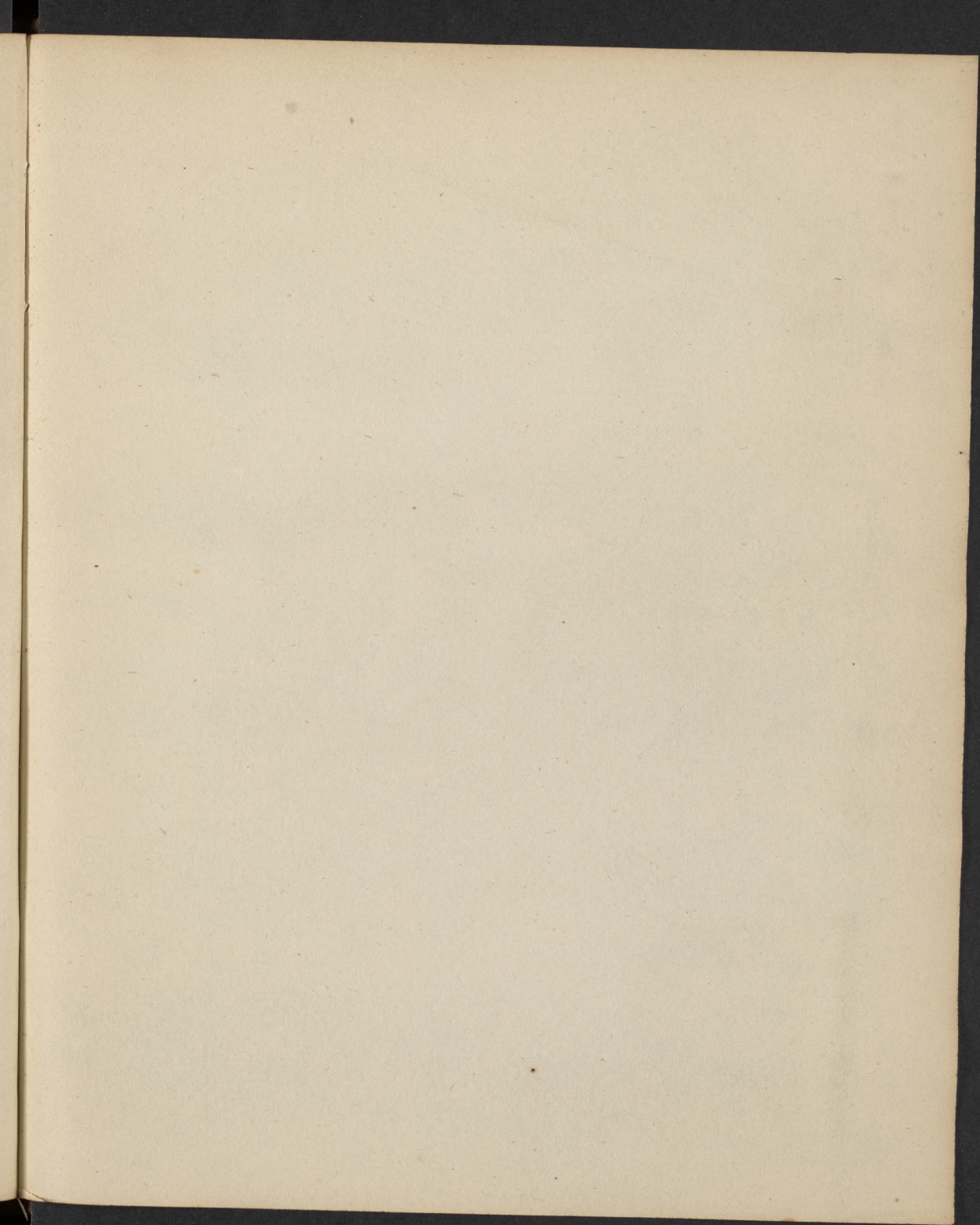
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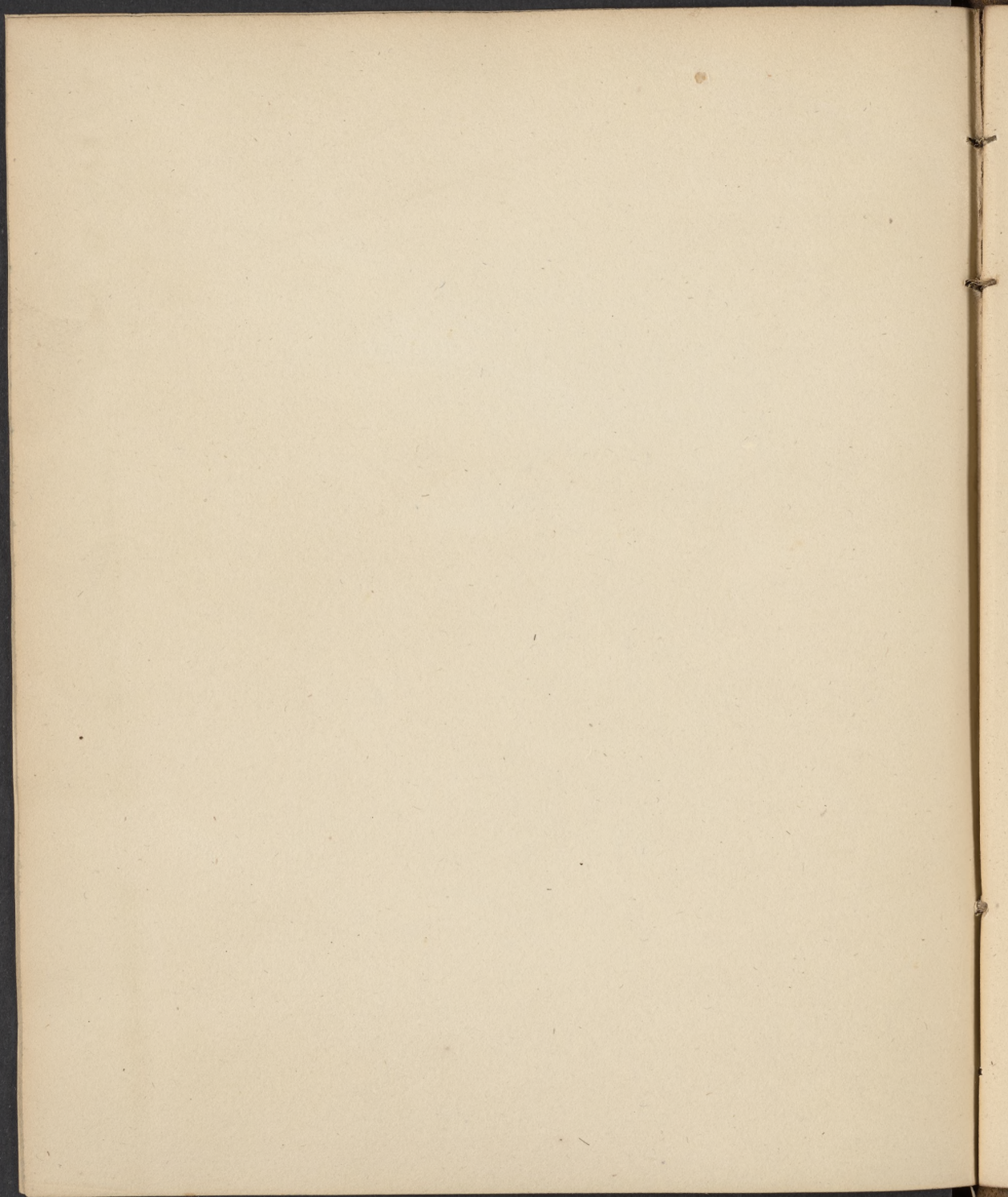


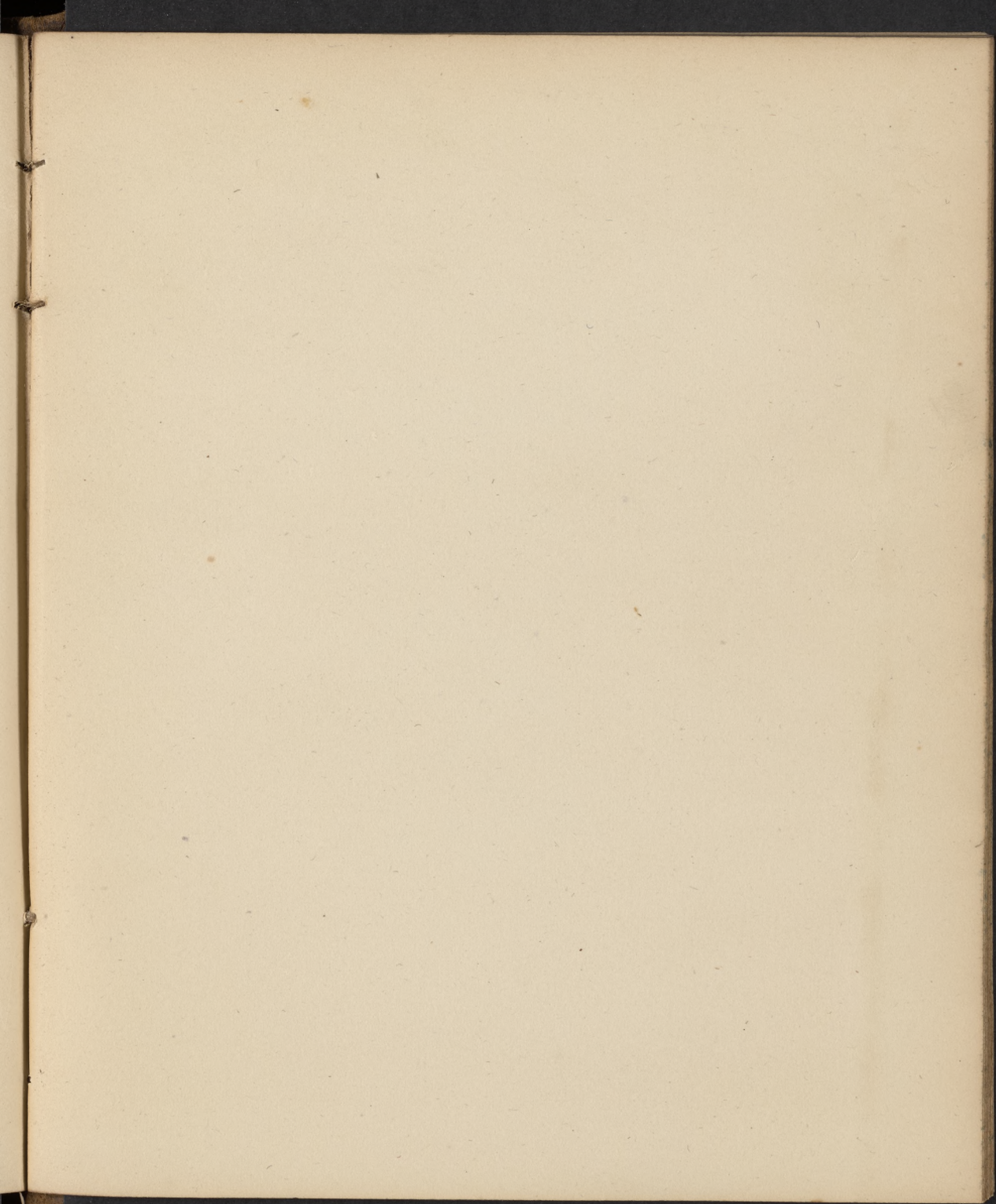


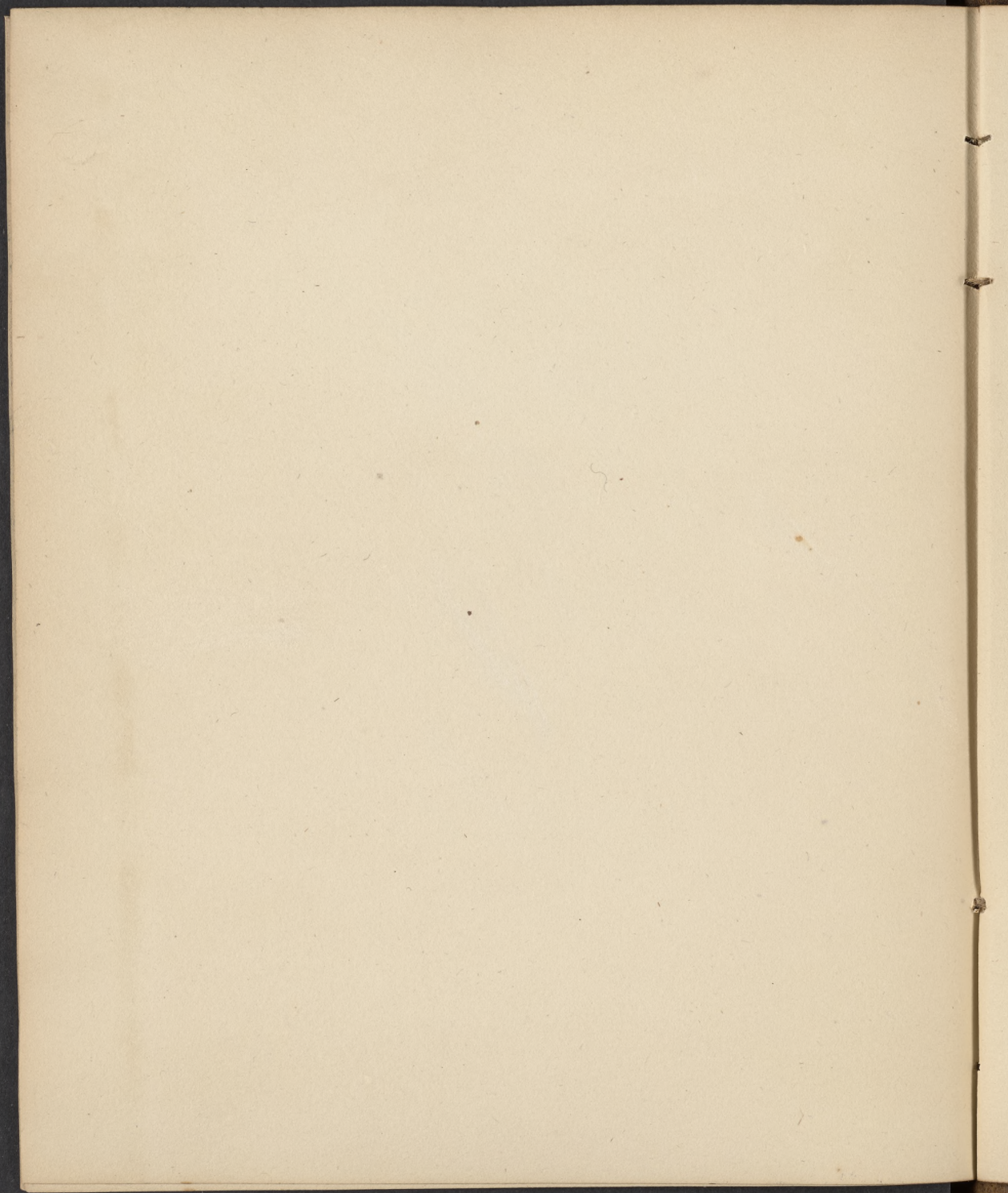


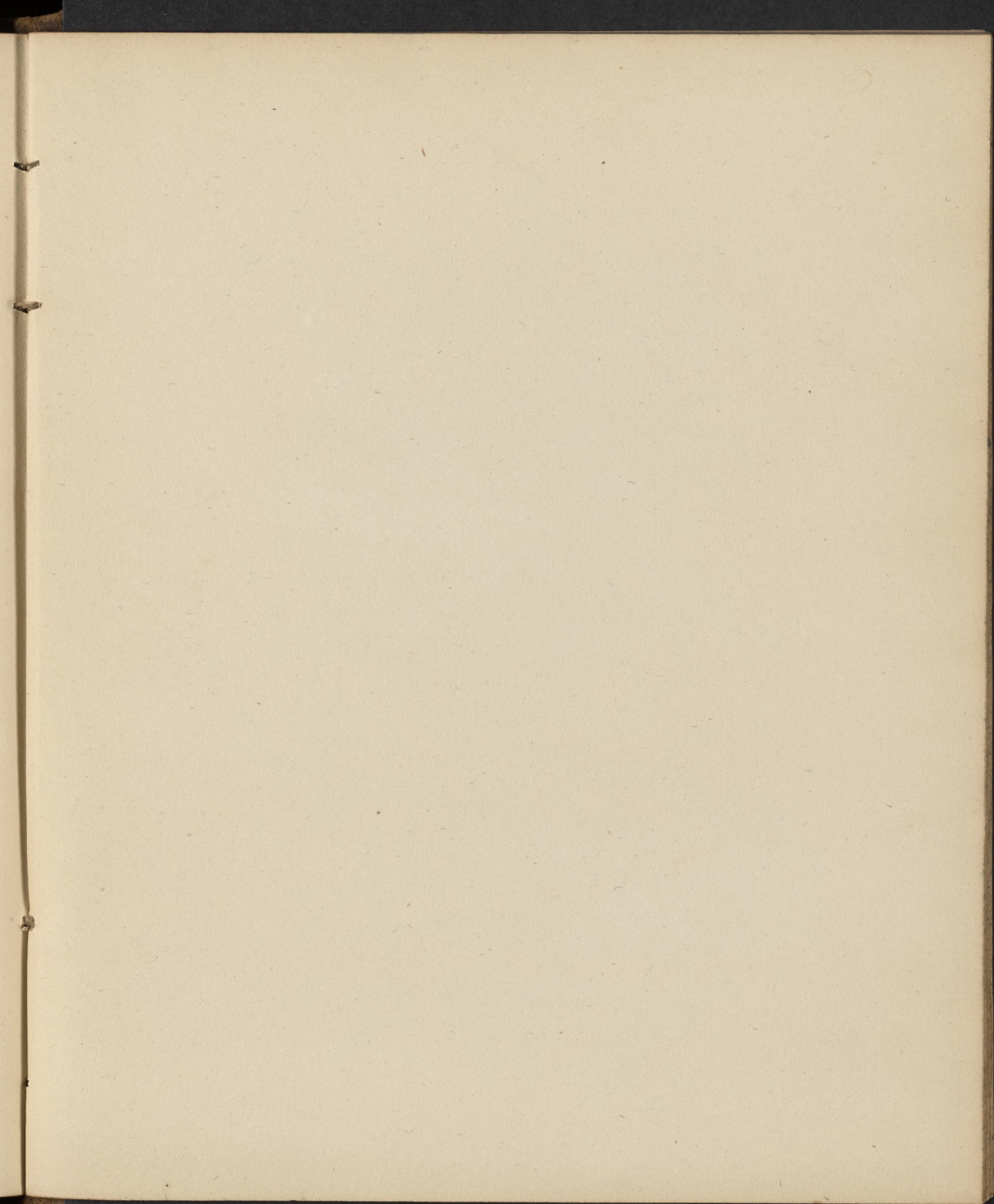


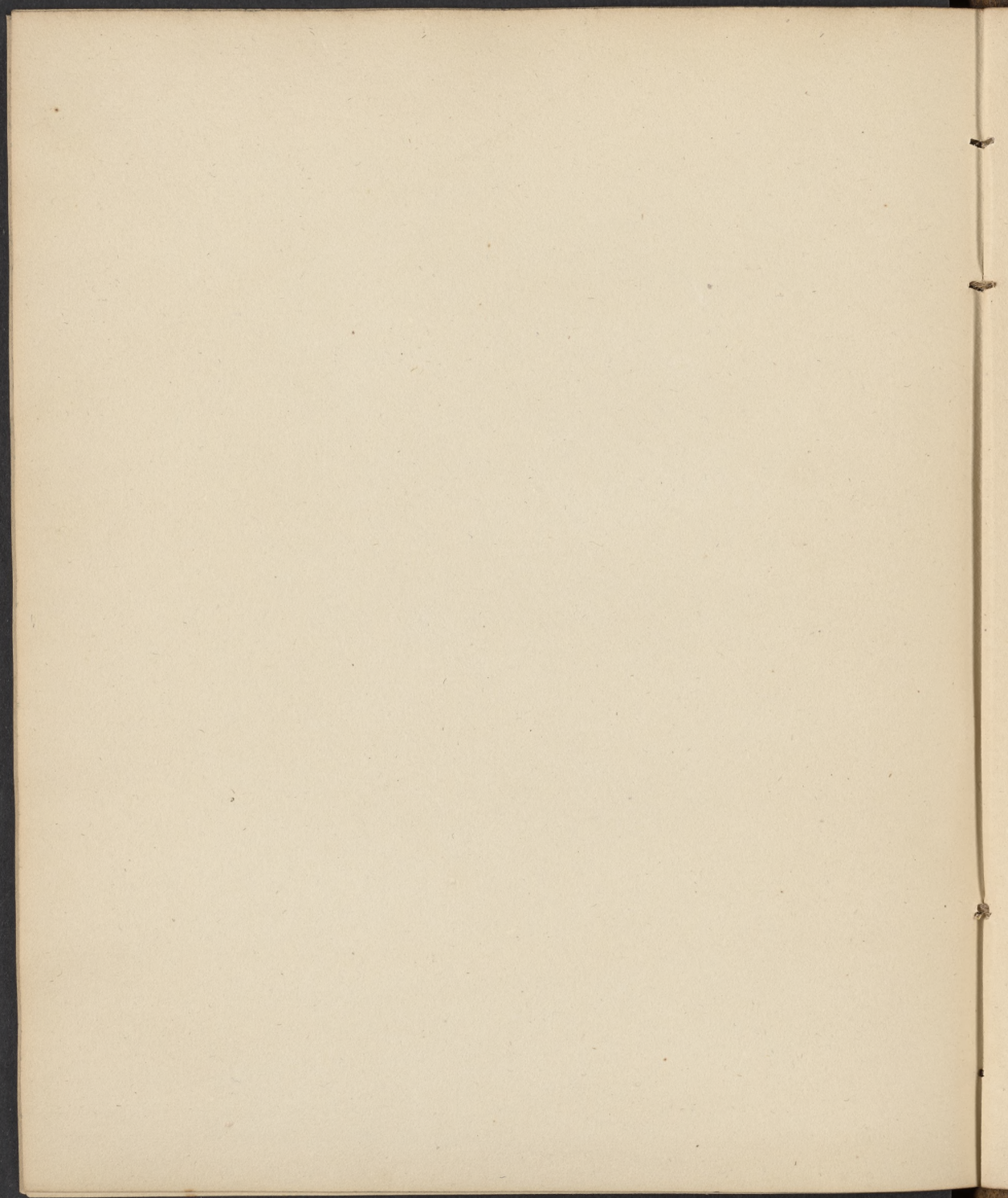


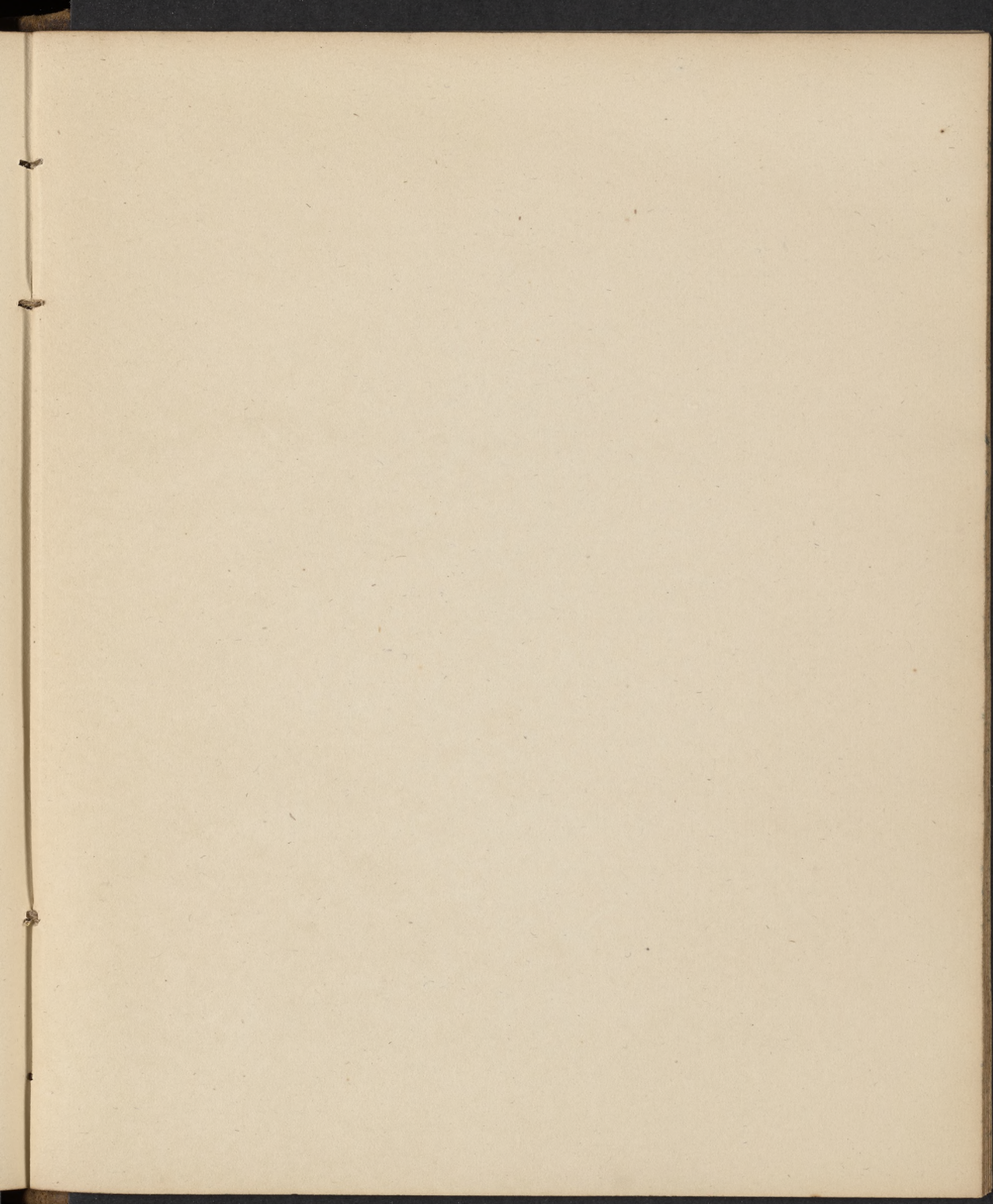


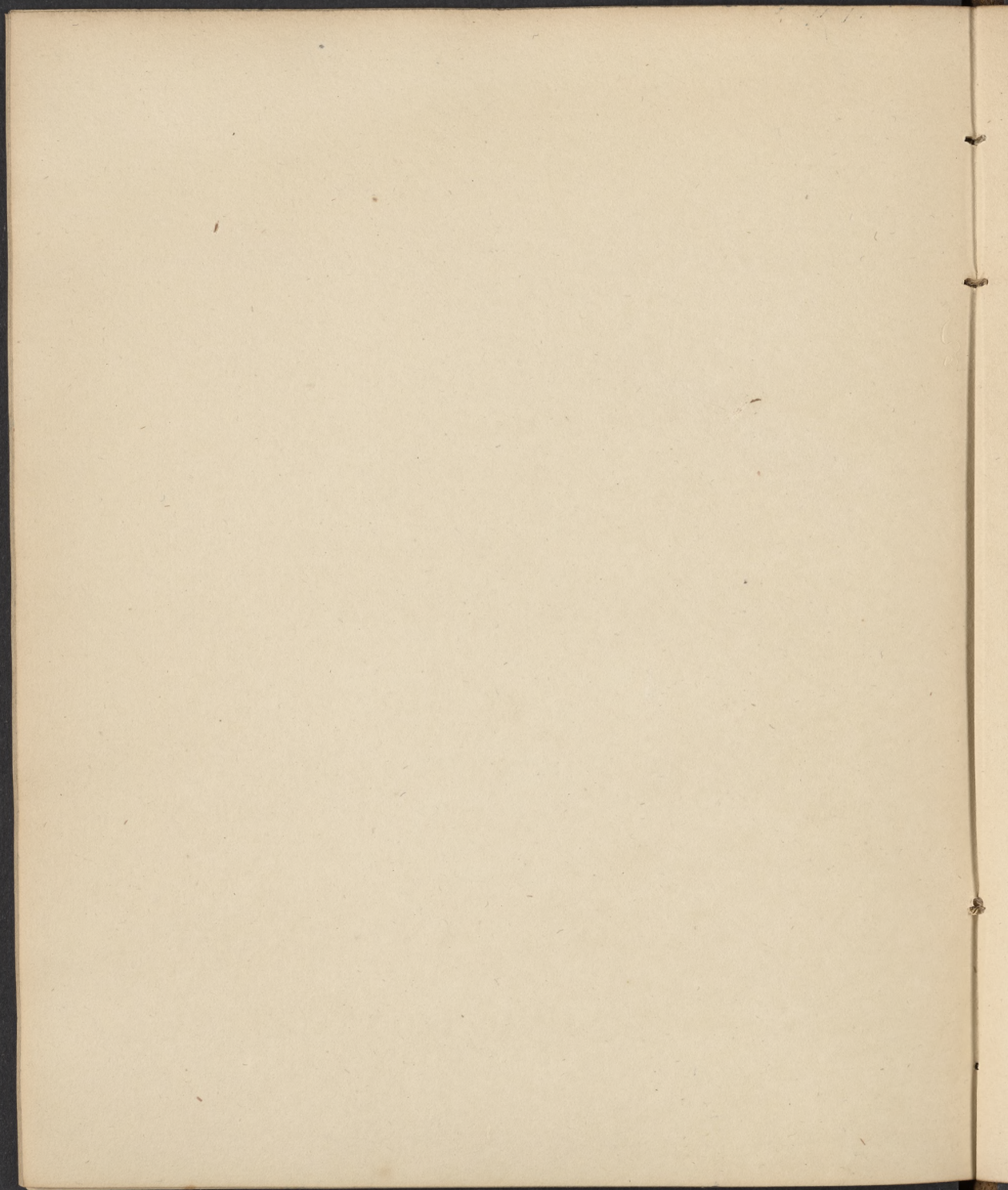


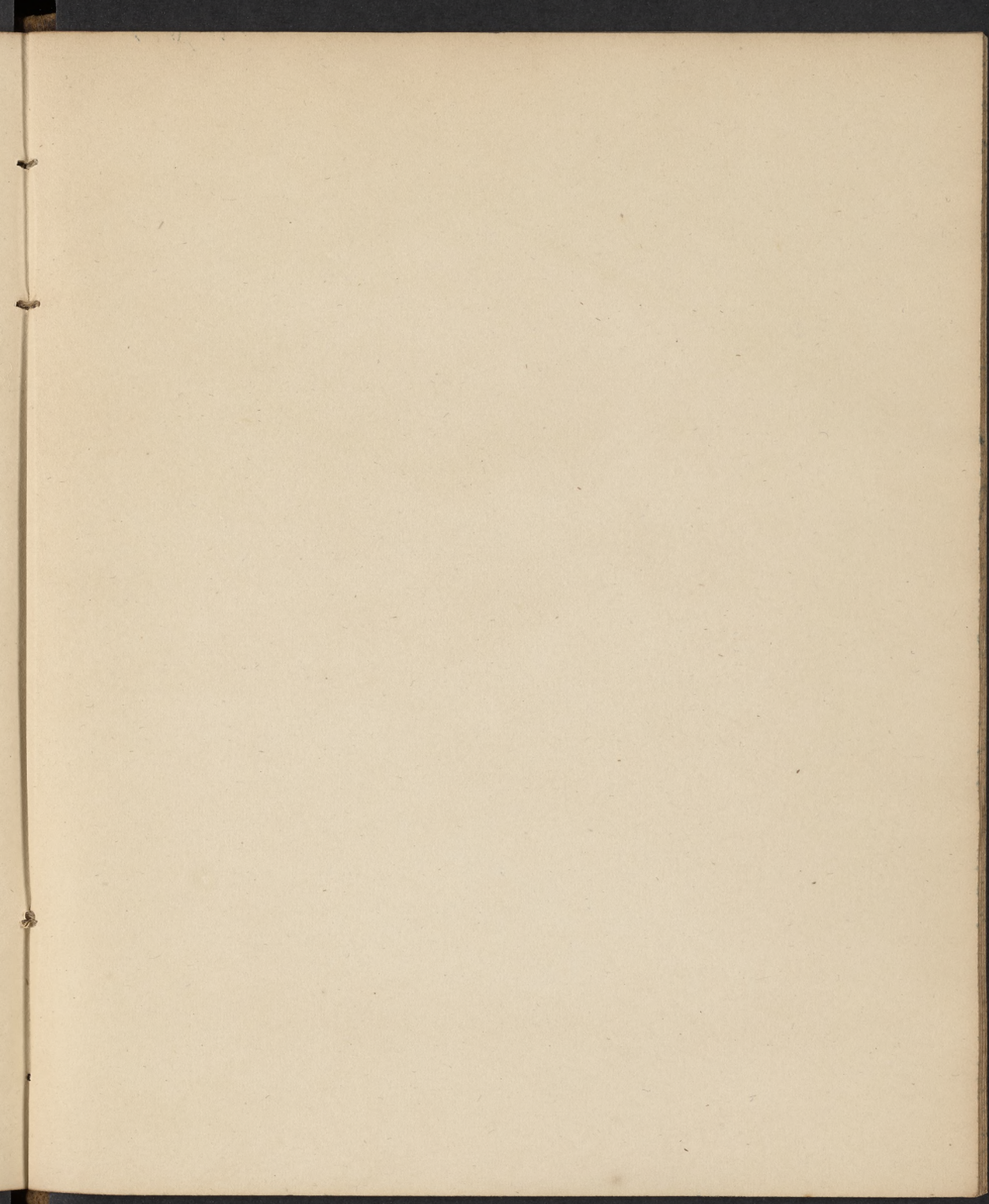


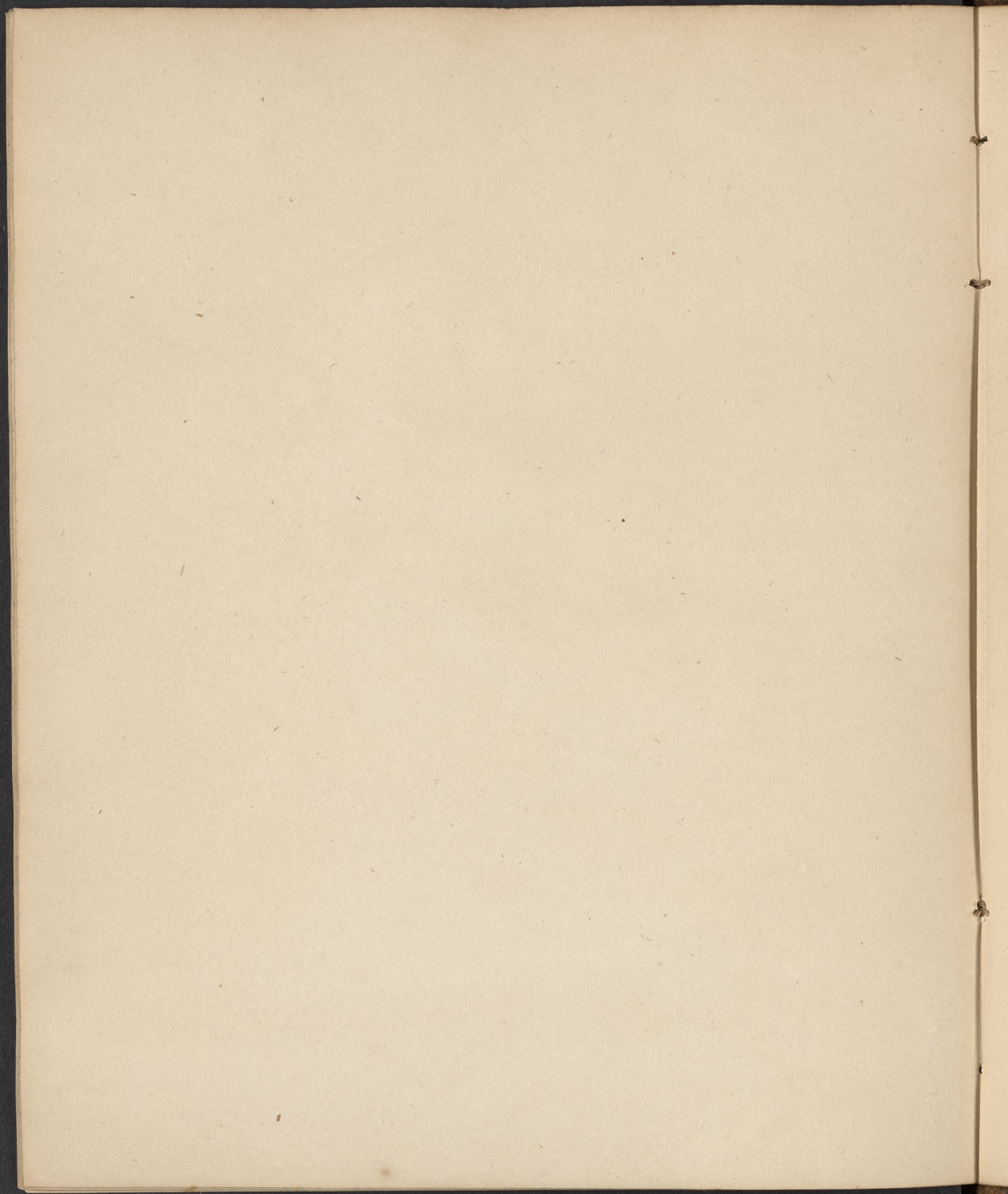


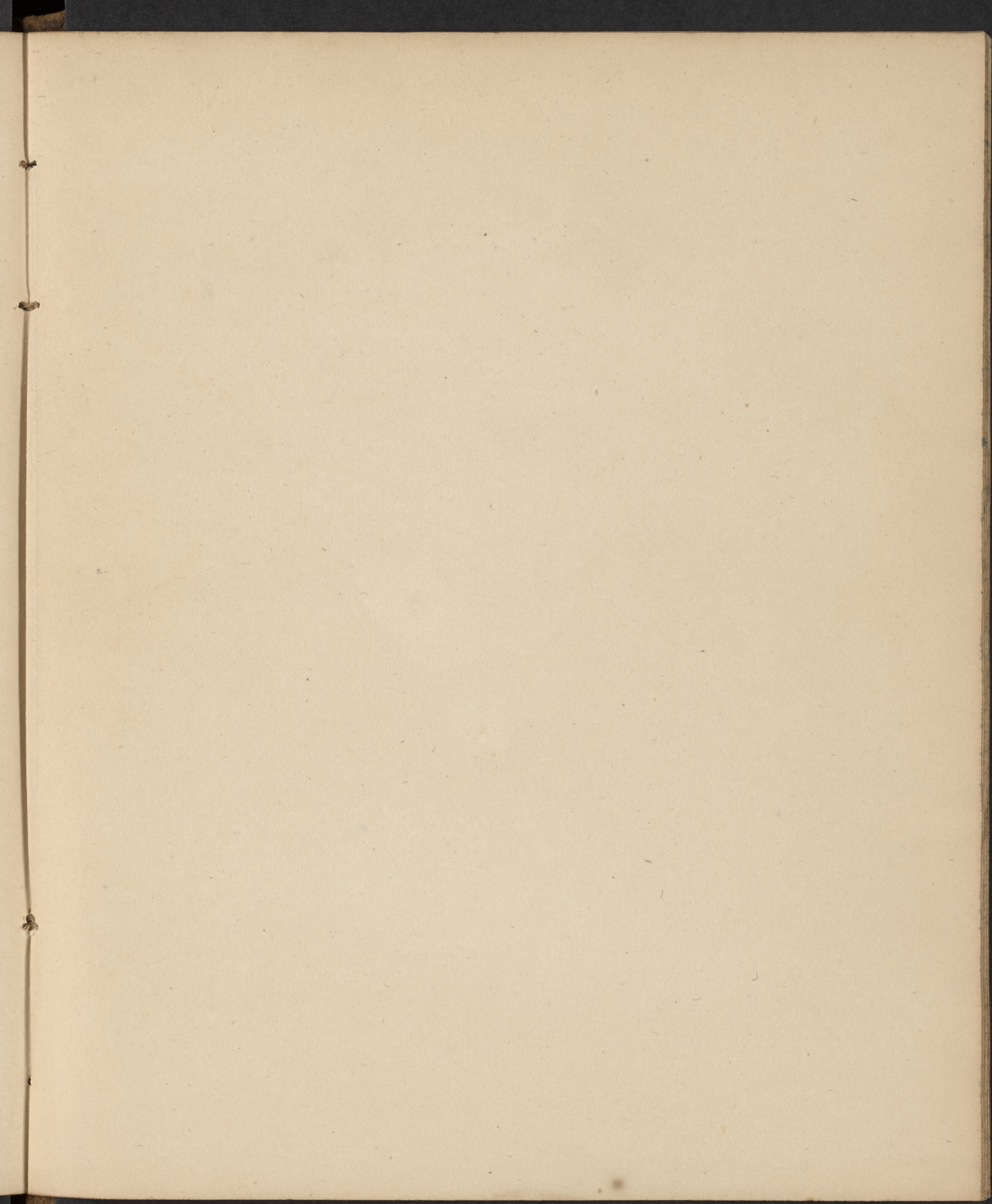


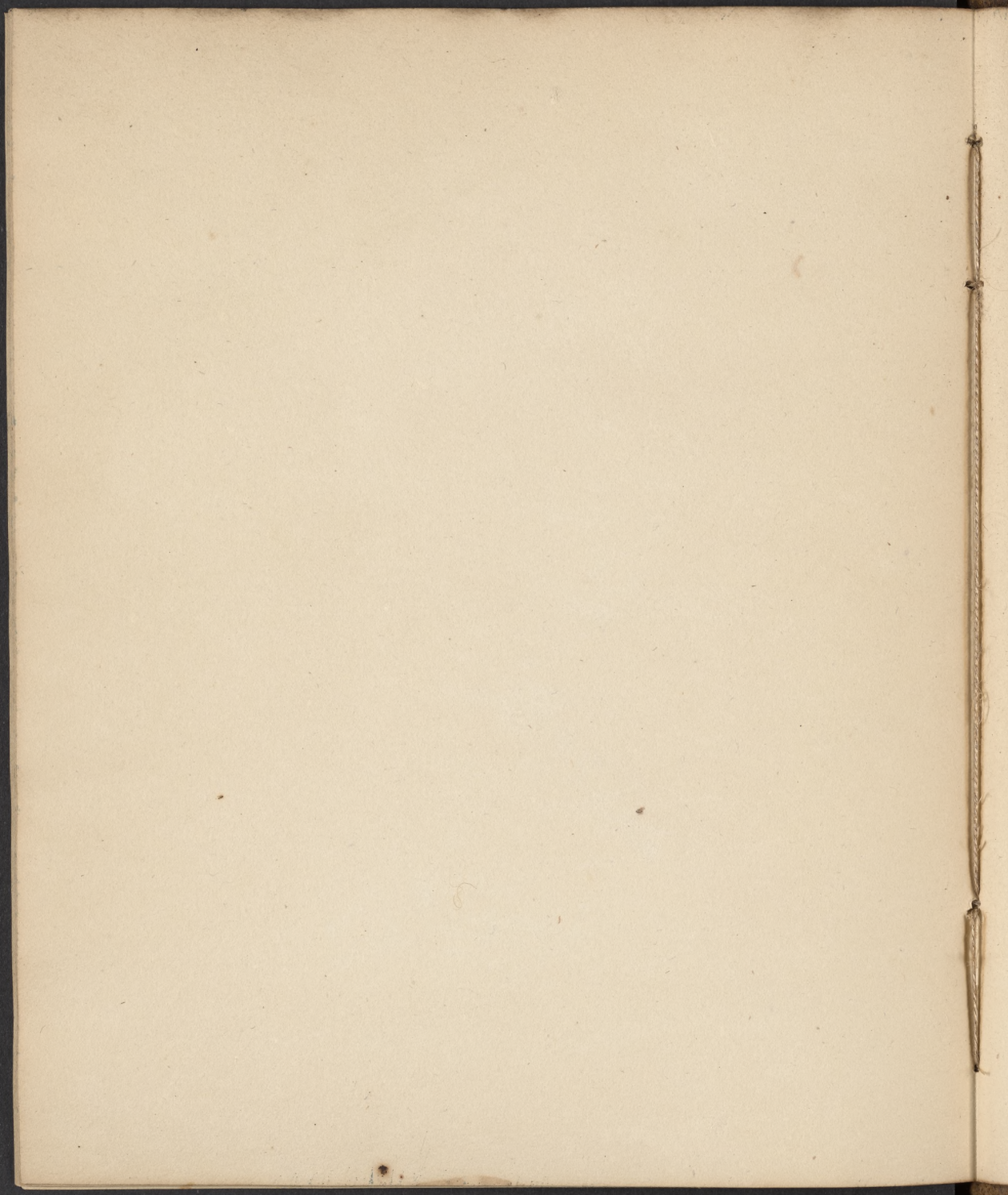


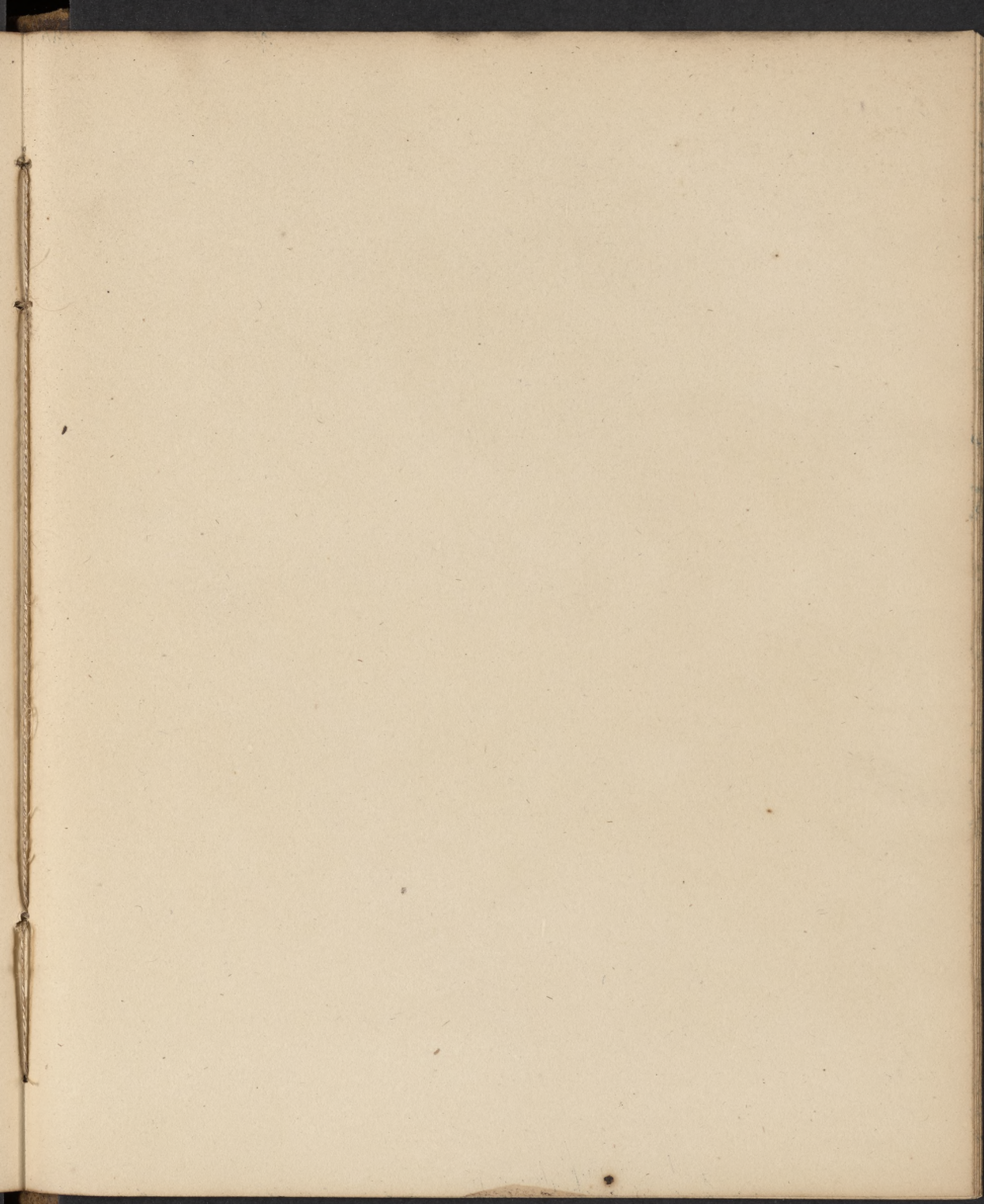


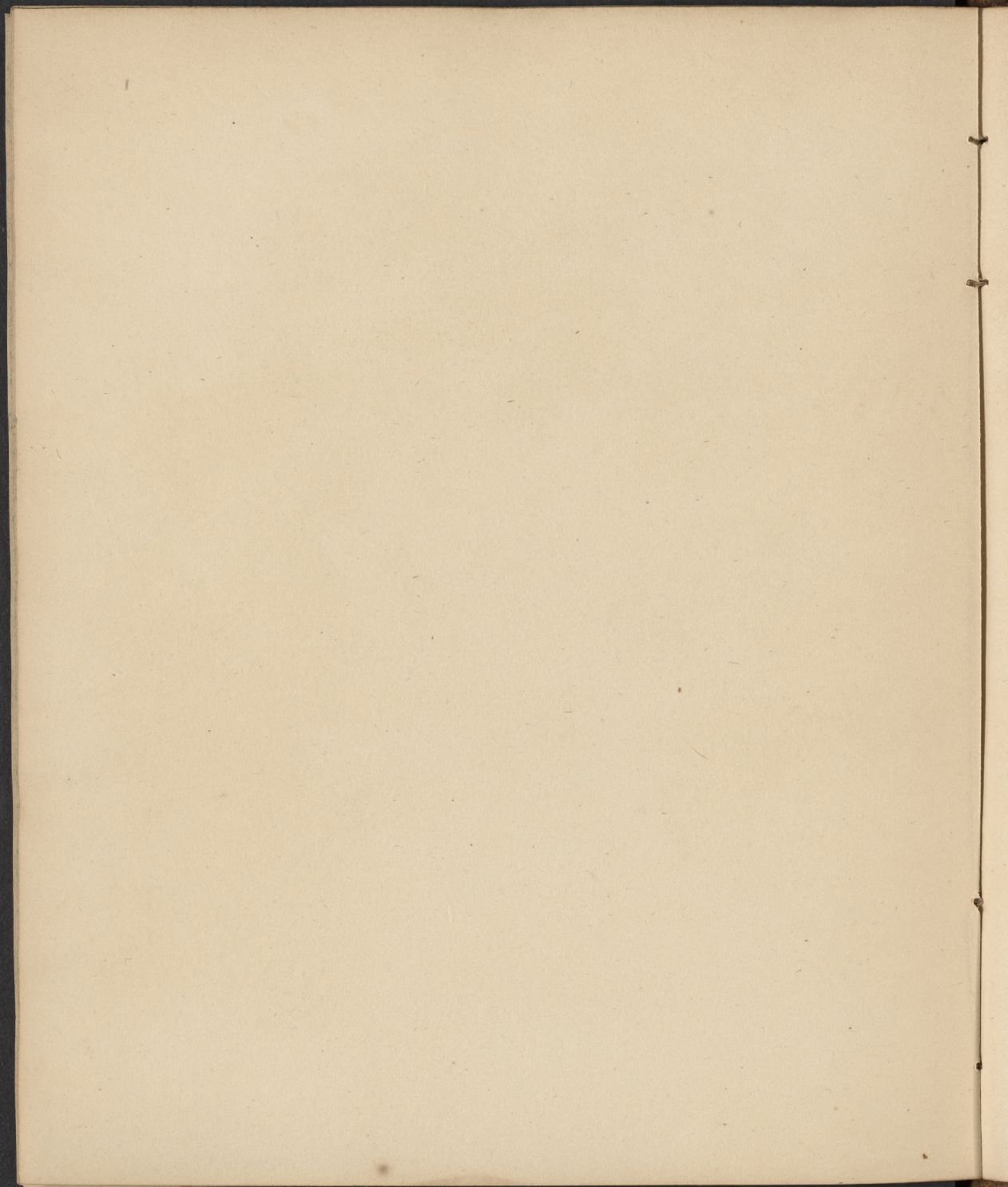


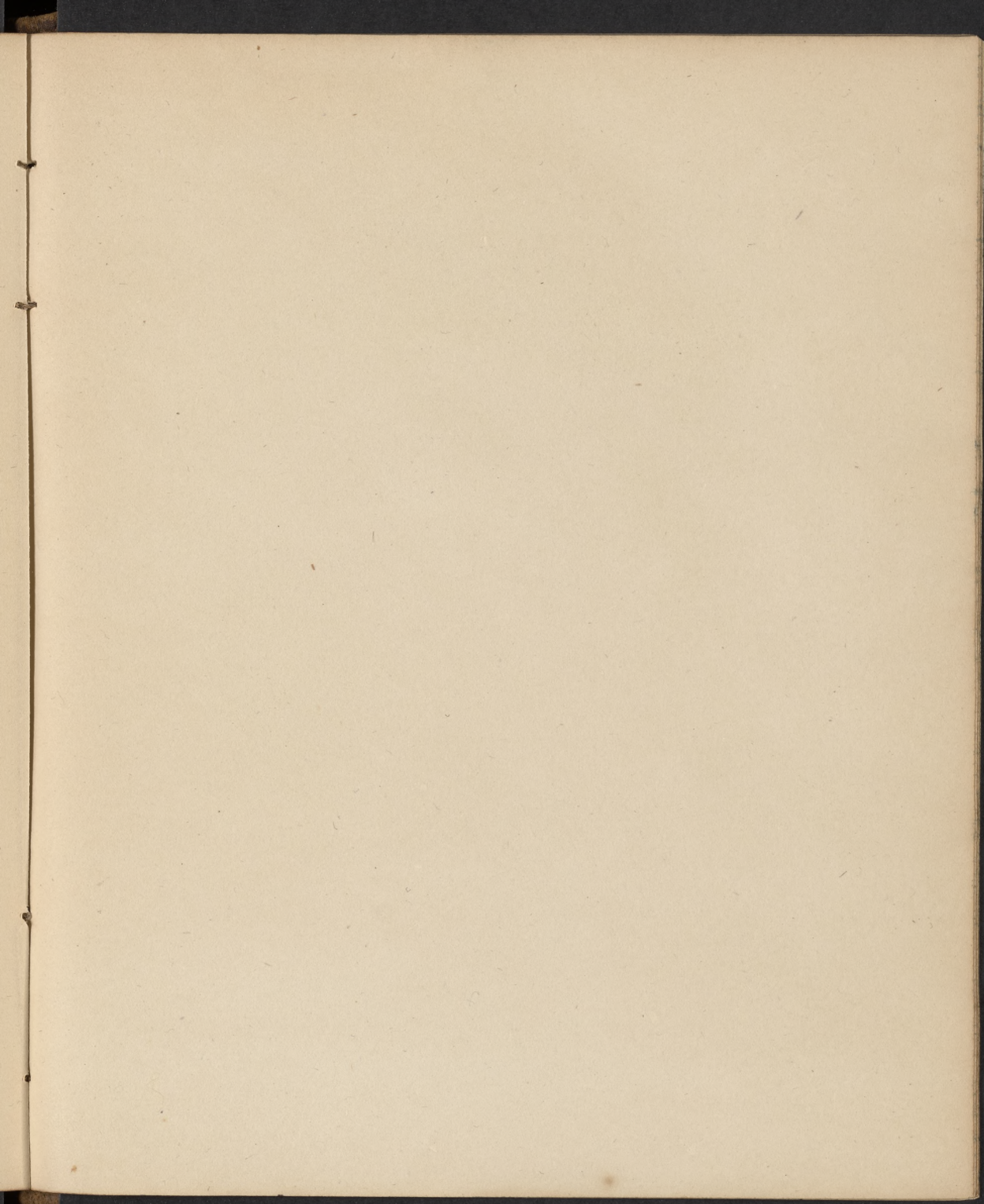


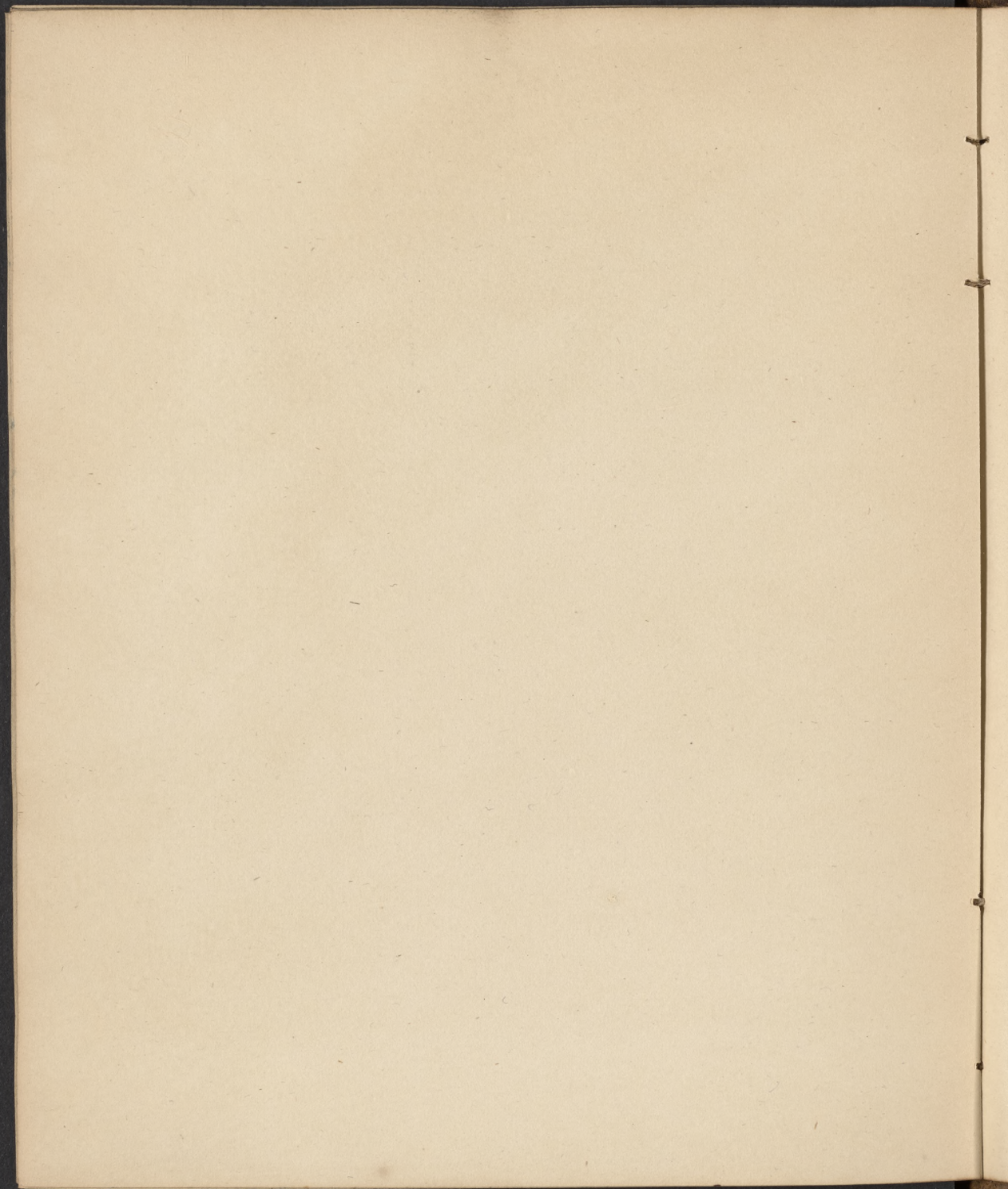


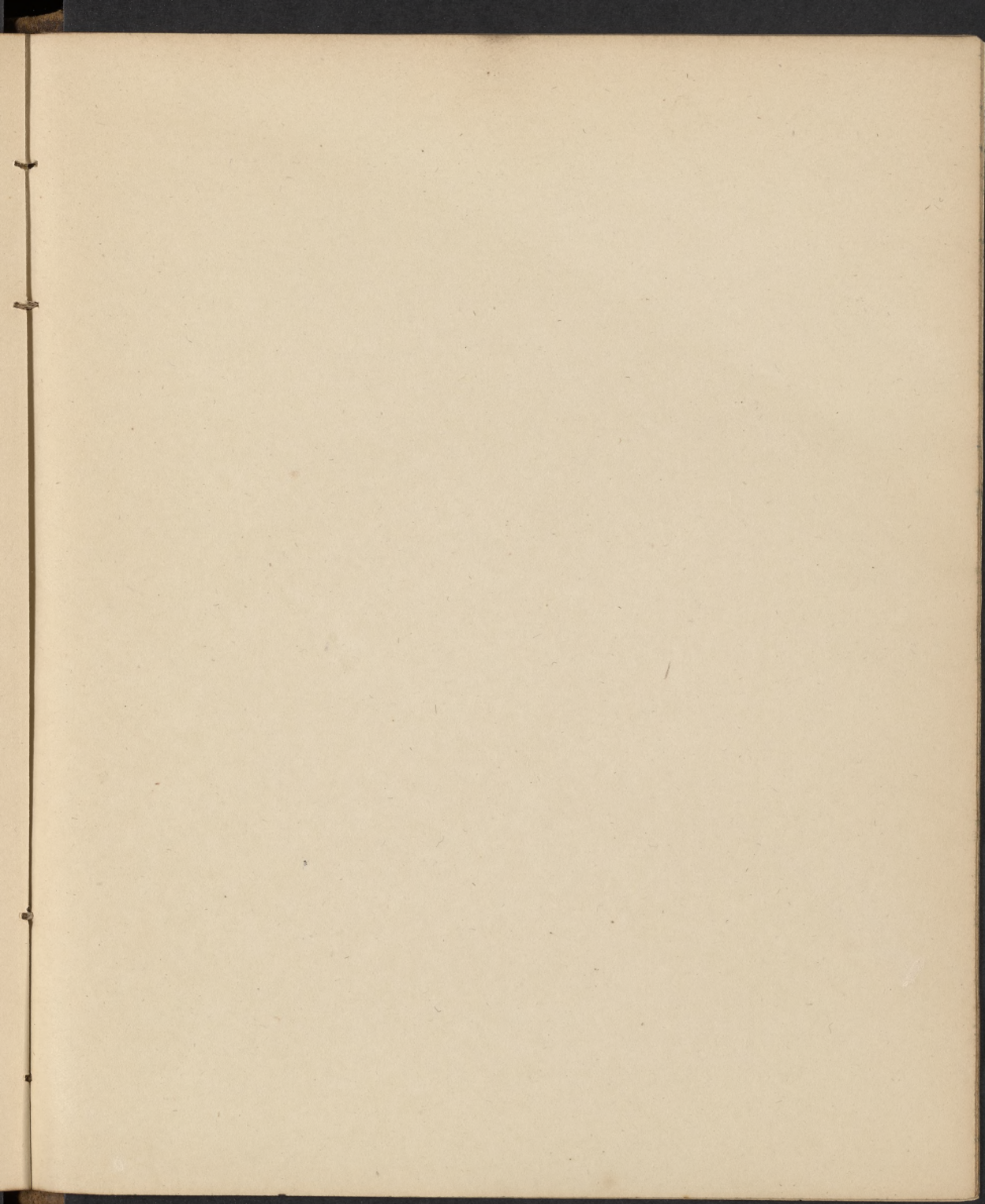


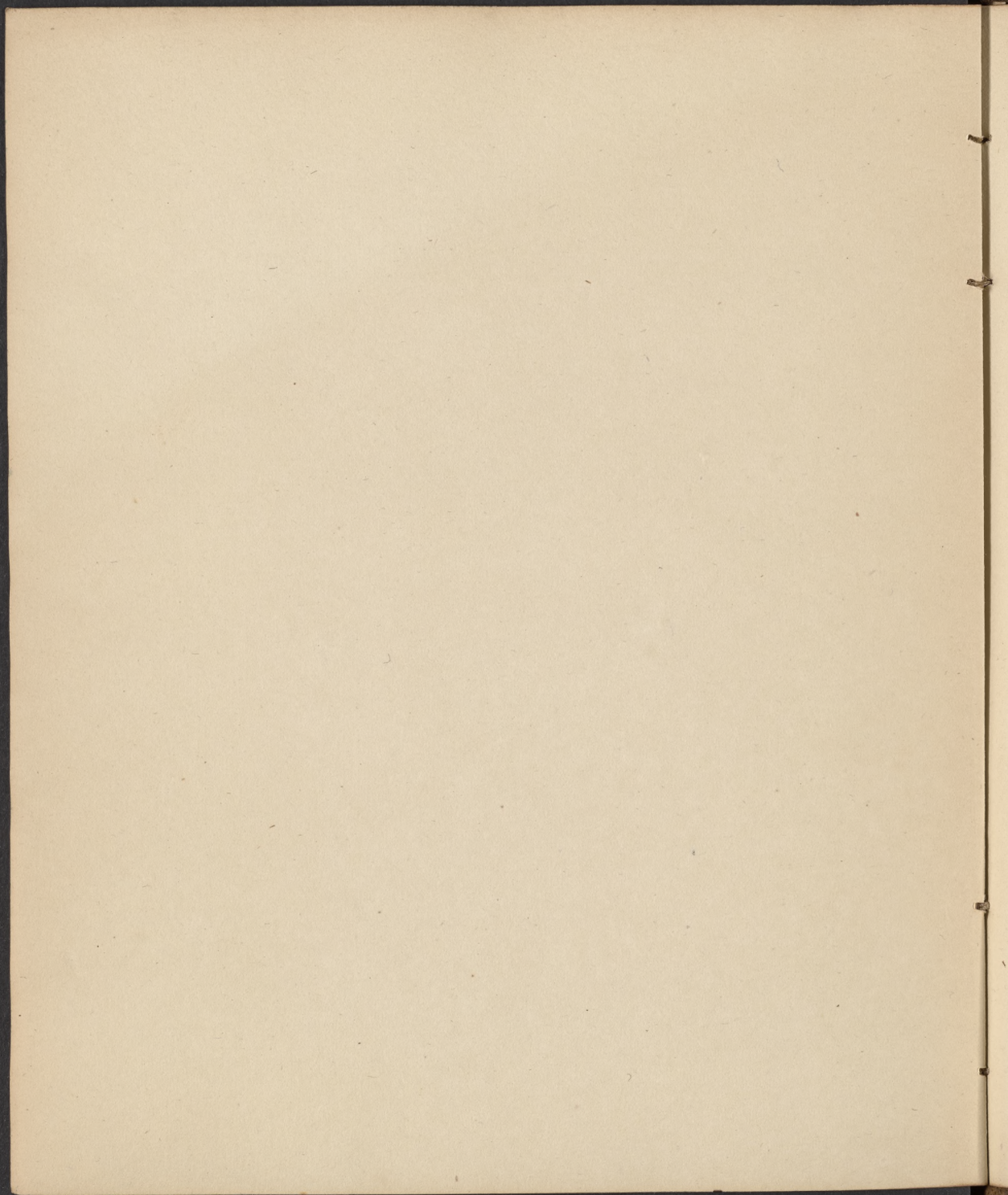


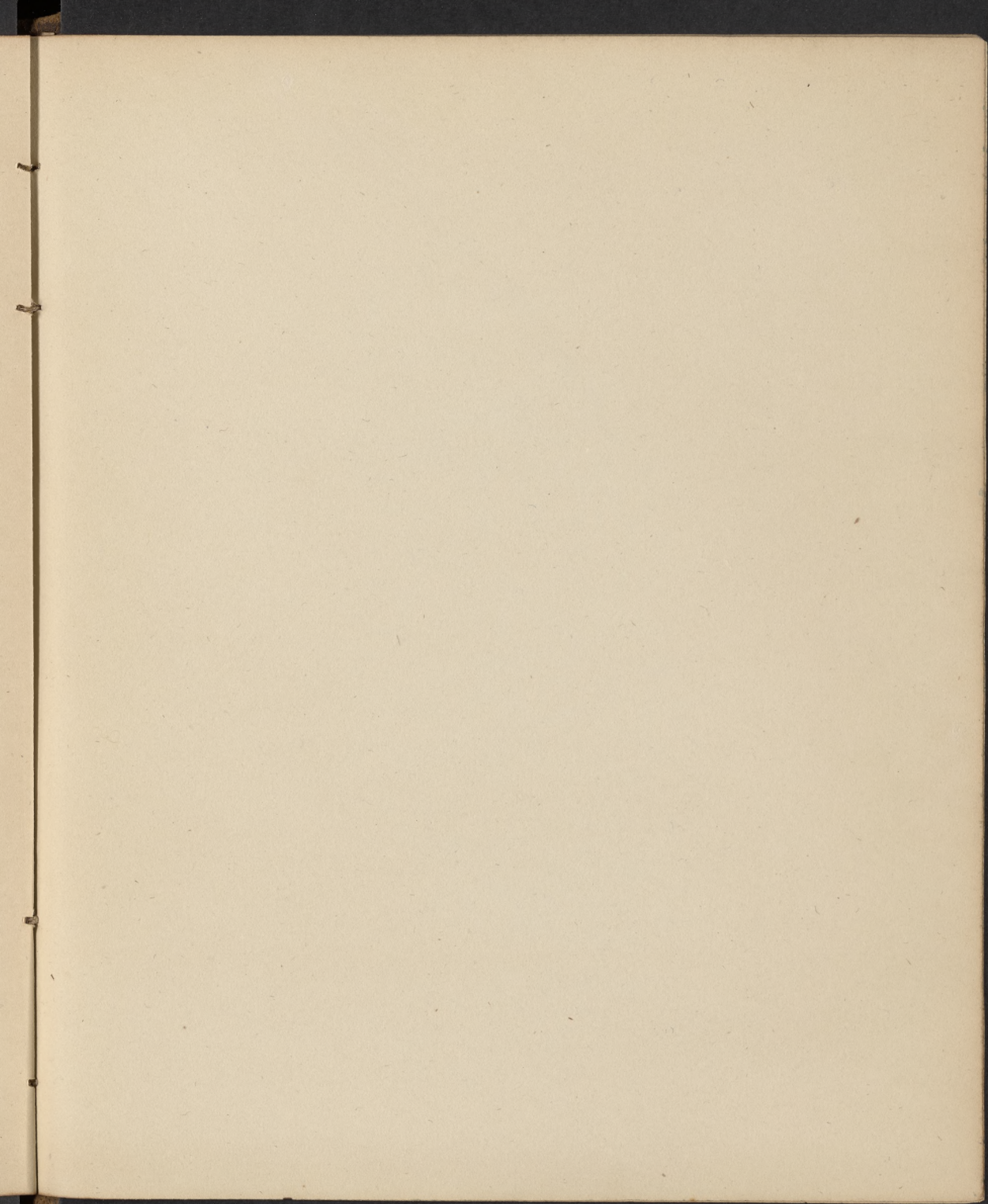


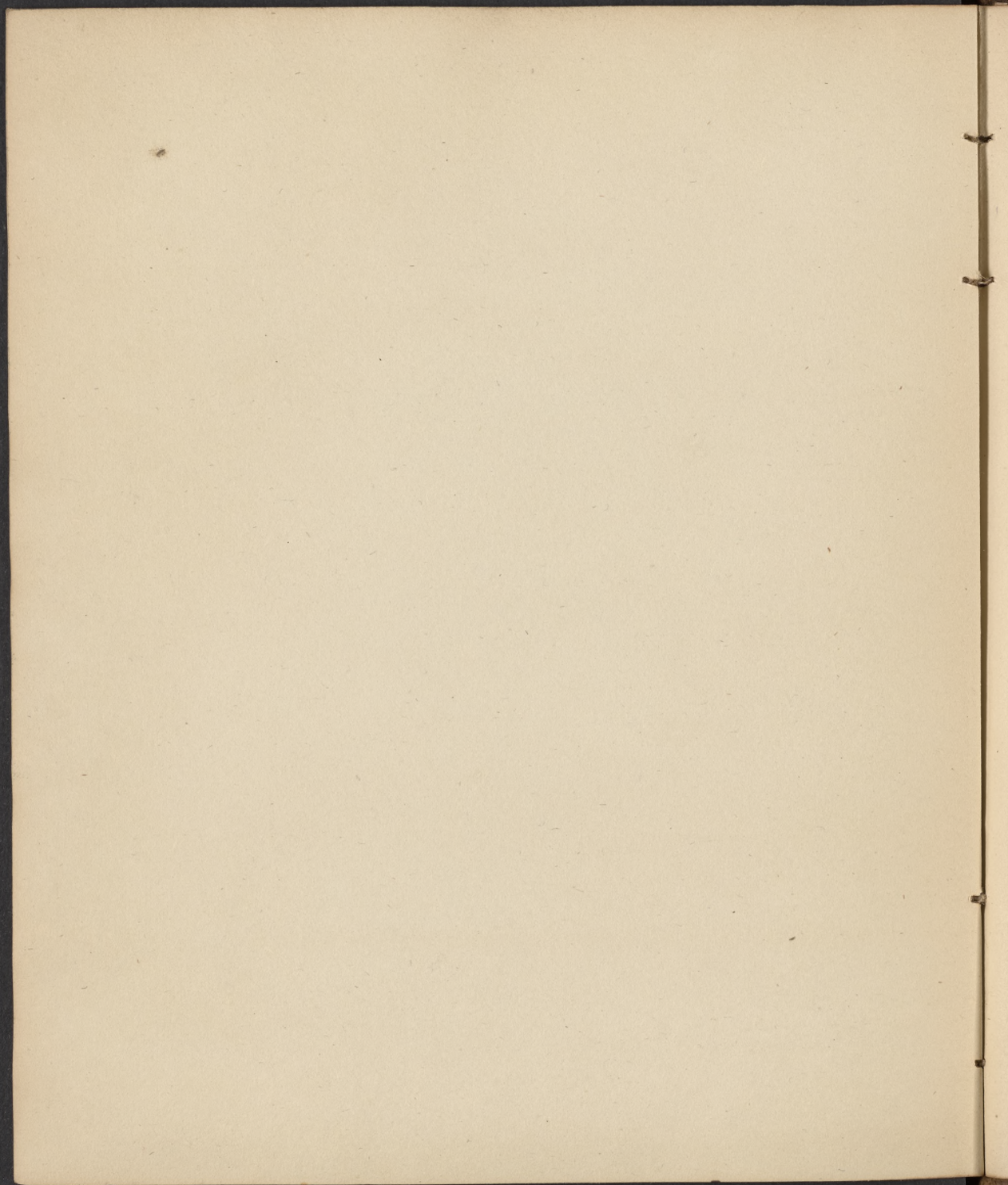


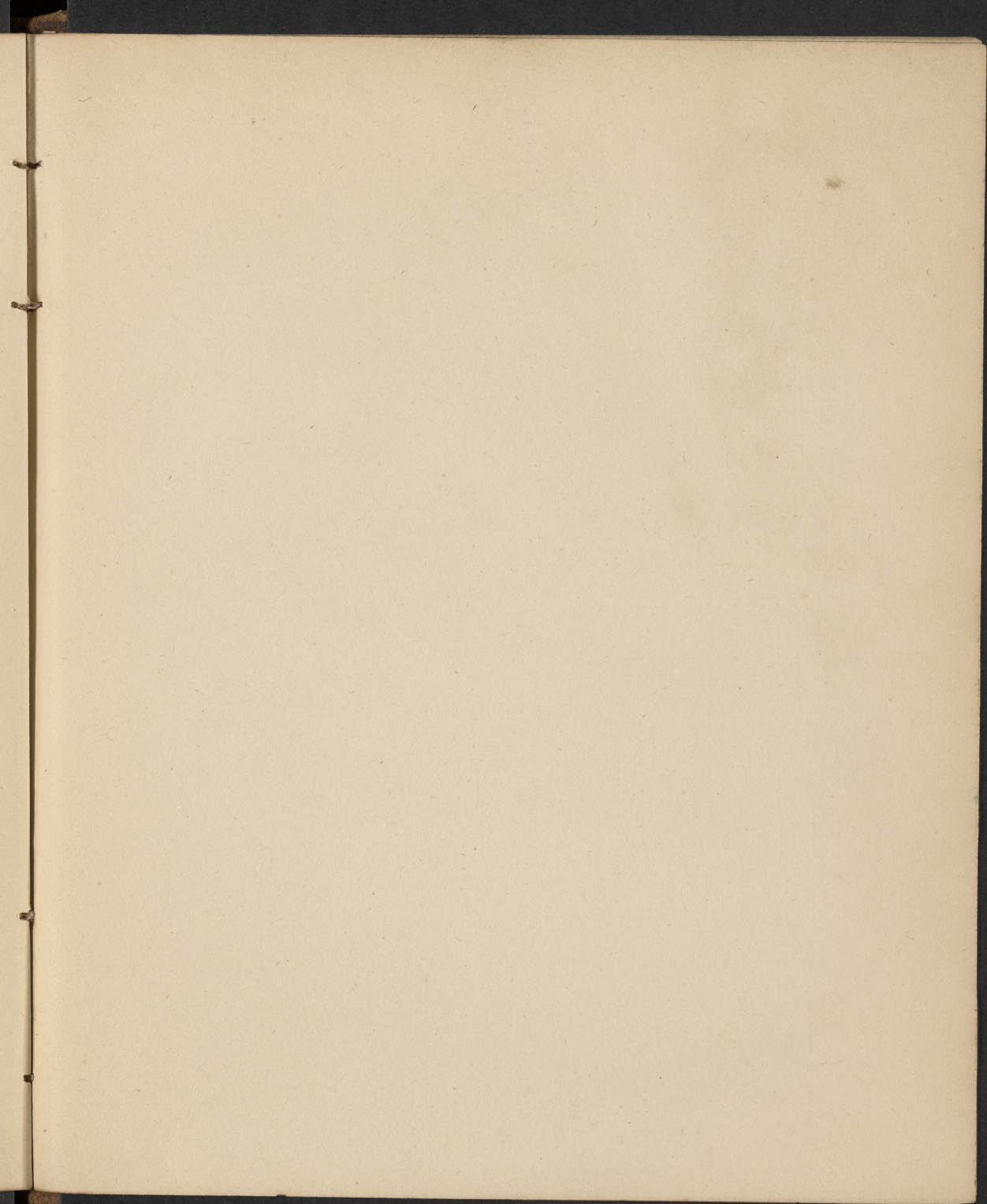


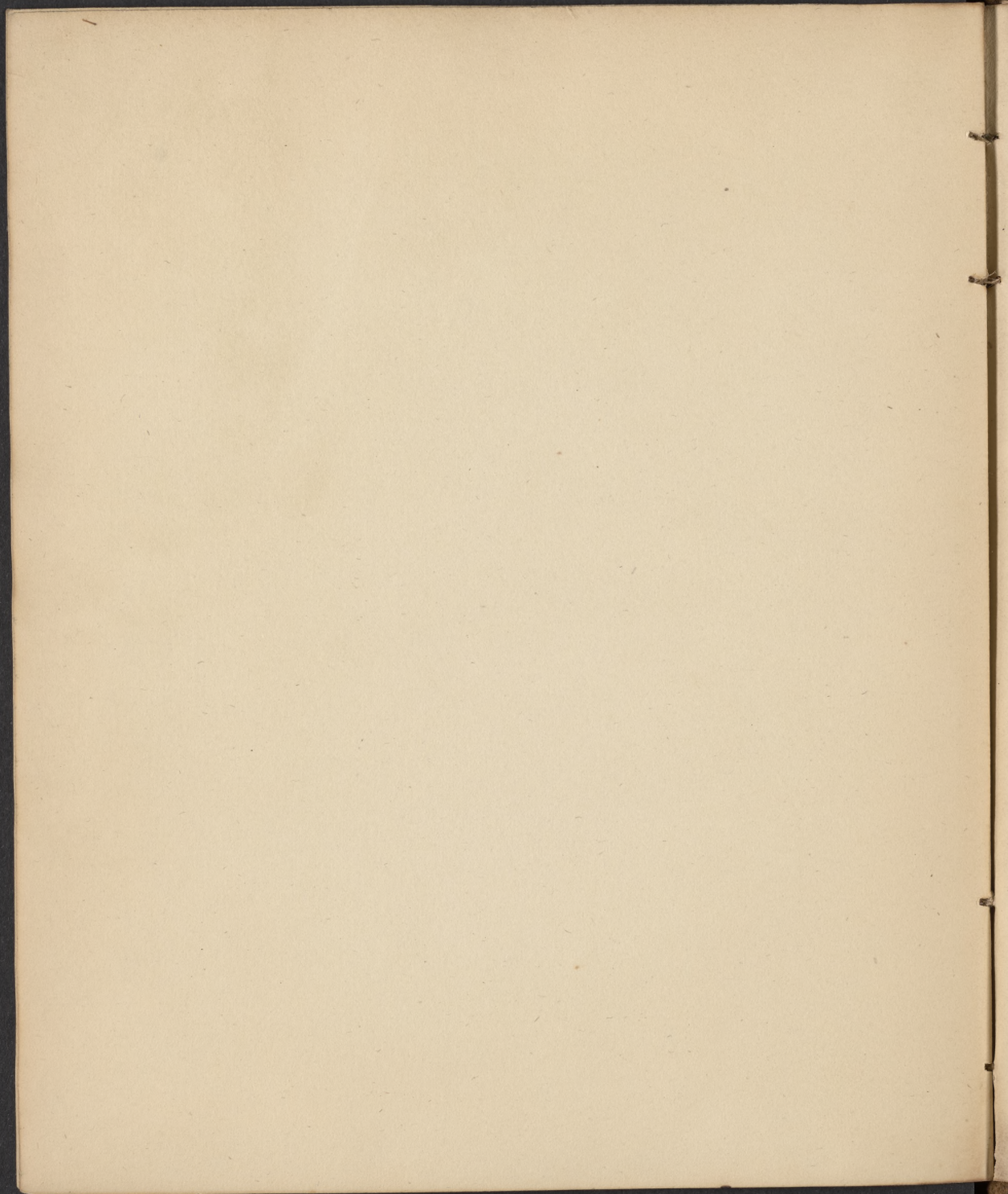


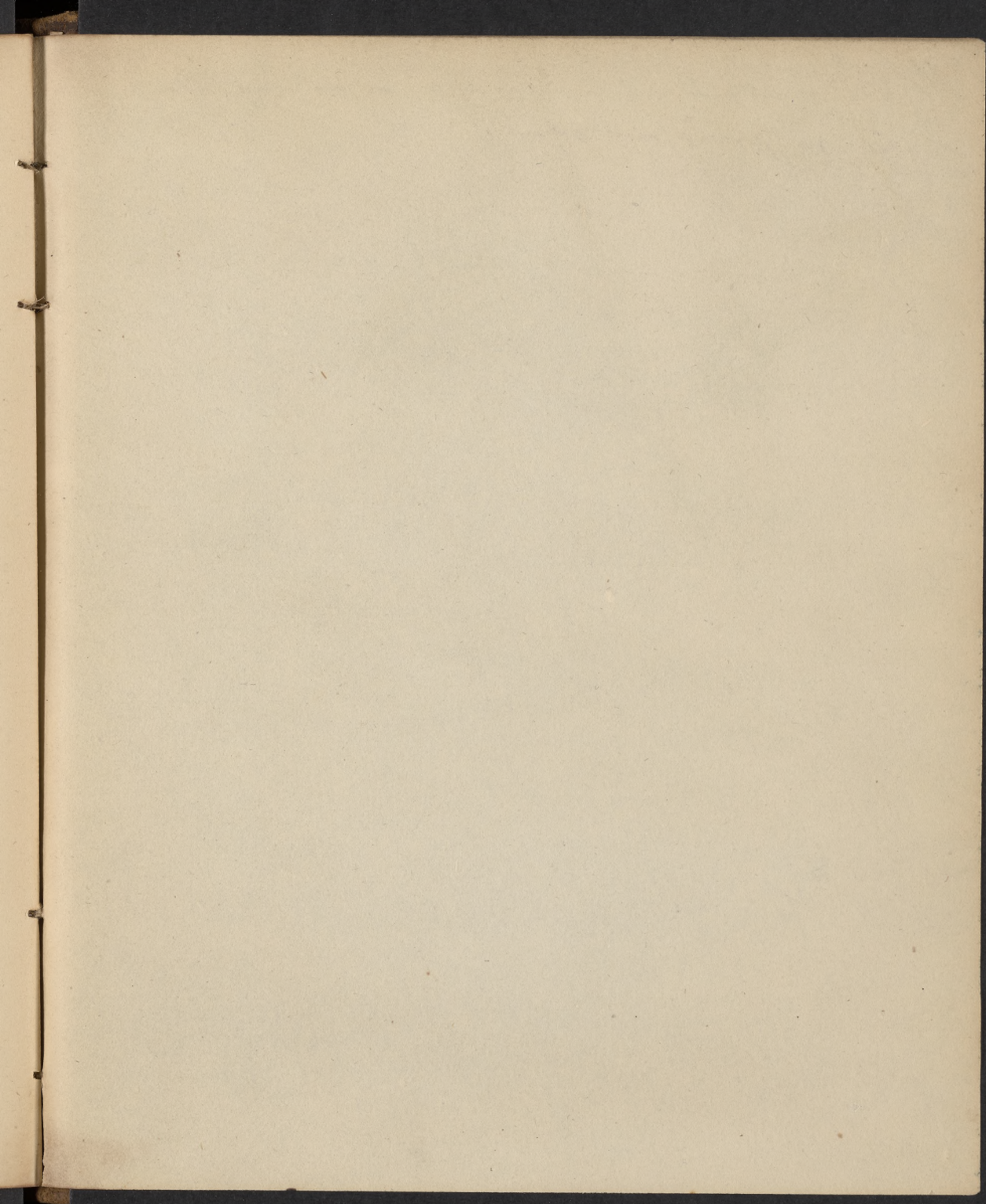












Rye much is recommended as an excellent
diet in prolapsus ani.

THOU wast
T. A. d. 1700. the 1st. of June

Why is our food so very sweet?

SECTION IV.

To a young Woman, with a Watch.

WHILE this gay toy attracts thy sight,
Thy reason let it warn;
And seize, my dear, that rapid time,
That never must return.

It idle lost, no art or care
The blessing can restore;
And Heav'n requires a strict account
For every mispent hour.

Short is our longest day of life,
And soon its prospect ends;
Yet on that day's uncertain date,
Eternity depends.

But equal to our being's aim,
The space to virtue giv'n;
And ev'ry minute, well improv'd,
Secures an age in Heav'n.

CARTER.

SECTION V.

verses accompanying a New-gay.

With which the artist builds her comb,
And keeps all tight and warm at home;
Or from the cowslip's golden bells
Sucks honey to enrich her cells;
Or ev'ry tempting rose pursues,
Or sips the lily's fragrant dews,
Yet never robs the shining bloom,
Or of its beauty, or perfume.
Thus she discharg'd in ev'ry way
The various duties of the day.
It chanced a frugal Ant was near,
Whose brow was furrow'd o'er by care;
A great economist was she,
Nor less laborious than the Bee;
By pensive parents often taught
What ills arise from want of thought;
That poverty on sloth depends,
On poverty the loss of friends.
Hence ev'ry day the Ant is found
With anxious steps to tread the ground;
With curious search to trace the grain,
And drag the heavy load with pain.
The active Bee with pleasure saw
The Ant and her parents' law.
Ah! sister, do not then say,
How very foolish I have been;
Who, taught in infancy to know
The comforts which from labour flow
Are independent of the great,